Alpha-Smooth Muscle Actin Monoclonal Antibody (1A4), eBioscience™

Catalog Number 14-9760-82

Product data sheet

Details

Size 100 µg
Host/Isotope Mouse / IgG2a, kappa
Class Monoclonal
Type Antibody
Clone 1A4
Conjugate Unconjugated
Form Liquid
Concentration 0.5 mg/mL
Purification Affinity chromatography
Storage buffer PBS, pH 7.2
Contains 0.09% sodium azide
Storage Conditions 4°C

Species Reactivity

Species Reactivity: Human, Mouse, Rat
Published Species: Rat, Pig, Mouse, Human, Chicken, Not Applicable

Tested Applications

<table>
<thead>
<tr>
<th>Published Applications</th>
<th>Dilution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow Cytometry (Flow)</td>
<td>Assay-Dependent</td>
</tr>
<tr>
<td>Immunohistochemistry (Frozen) (IHC (F))</td>
<td>1 µg/mL</td>
</tr>
<tr>
<td>Immunohistochemistry (Paraffin) (IHC (P))</td>
<td>1:100-1:500</td>
</tr>
<tr>
<td>Immunoprecipitation (IP)</td>
<td>Assay-Dependent</td>
</tr>
<tr>
<td>Western Blot (WB)</td>
<td>1:100</td>
</tr>
<tr>
<td>Immunocytochemistry (ICC/IF)</td>
<td>1 µg/mL</td>
</tr>
</tbody>
</table>

Published Applications

- Immunohistochemistry (IHC): See 11 publications below
- Immunohistochemistry (ICC/IF): See 7 publications below
- Western Blot (WB): See 3 publications below
- Miscellaneous PubMed (Misc): See 1 publications below
- In vitro Assay (IV): See 1 publications below
- Immunohistochemistry (Paraffin) (IHC (P)): See 1 publications below
- Immunohistochemistry (Frozen) (IHC (F)): See 1 publications below

* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.

Product specific information

Description: The monoclonal antibody 1A4 recognizes human, mouse, and rat alpha-smooth muscle actin. Alpha-smooth muscle actin is a 42 kDa protein and is a major component of the cytoskeletal structural network. This 1A4 antibody is specific for the alpha form of muscle actin only, which is expressed by smooth muscle cells of blood vessels, myofibroblasts, and myoepithelial cells. It is also expressed in the parenchyma and stroma of various tissues. Alpha-smooth muscle actin is useful in the identification of leiomyomas, leiomyosarcomas and pleomorphic adenomas and is used as a prognostic marker for basal cell carcinoma. Applications Reported: This 1A4 antibody has been reported for use in intracellular staining followed by flow cytometric analysis, immunoprecipitation, western blotting, immunohistochemical staining of frozen tissue sections, immunohistochemical staining of formalin-fixed paraffin embedded tissue sections, microscopy, and immunocytochemistry. (Fluorochrome conjugated 1A4 is recommended for use in intracellular flow cytometry.). Applications Tested: This 1A4 antibody has been tested by immunohistochemistry of formalin-fixed paraffin embedded human tissue using low or high pH antigen retrieval and can be used at less than or equal to 1 µg/mL. This 1A4 antibody has been tested by immunocytochemistry of formaldehyde or methanol-fixed and permeabilized human cells and can be used at 1 µg/mL. This 1A4 antibody has been tested by western blot analysis of reduced rat and mouse intestine and can be used at less than or equal to 5 µg/mL. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest. Purity: Greater than 90%, as determined by SDS-PAGE. Aggregation: Less than 10%, as determined by HPLC. Filtration: 0.2 µm post-manufacturing filtered.

Background/Target Information

Smooth Muscle Actin belongs to the actin family of proteins, which are highly conserved proteins that play a role in cell motility, structure and integrity. Alpha,
beta and gamma actin isoforms have been identified, with alpha actin being a major constituent of the contractile apparatus, while beta and gamma actins are involved in the regulation of cell motility. In particular, smooth muscle actin is an alpha actin that is found in skeletal muscle. Actin exists as a ubiquitous protein involved with filament formation that make up large portions of the cytoskeleton. Actin filaments interact with myosin to assist in muscle contraction as well as aiding in cell motility and cytokinesis. Smooth muscle actin is found on smooth muscle vessel walls, gut wall, myometrium, myoepithelial cells in breast and salivary glands. Defects in the smooth muscle actin gene cause aortic aneurysm familial thoracic type 6. Actin isoforms differ slightly in their N-terminus and the sequences of each are perfectly conserved in higher vertebrates. Alpha-smooth muscle actin is abundant in vascular and visceral smooth muscle cells. In addition, it has also been shown that smooth muscle actin appear in stress fibers of fibroblastic cells during pathological situations involving contractile phenomena such as wound healing and fibrocontractive diseases. Multiple alternatively spliced variants of smooth muscle actin have been identified.
Alpha-Smooth Muscle Actin Antibody (14-9760-82)

Antibody specificity was demonstrated by the relative expression of target protein in different tissues by IHC. Differential expression of ACTA2 in mouse duodenum and mouse brain tissues using Alpha-Smooth Muscle Actin Monoclonal Antibody (1A4), eBioscience™ (Product # 14-9760-82) shows strong staining in mouse duodenum tissue and no staining in mouse brain tissue. (RE)

Alpha-Smooth Muscle Actin Antibody (14-9760-82) in ICC/IF

Immunofluorescence analysis of Smooth Muscle Actin was performed using 70% confluent log phase C2C12 cells. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 15 minutes, and blocked with 2% BSA for 1 hour at room temperature. The cells were labeled with Smooth Muscle Actin Polyclonal Antibody (Product # 14-9760-82) at 1 µg/mL in 0.1% BSA, incubated at 4 degree Celsius overnight and then labeled with Goat anti-Mouse IgG (H+L) Superclonal™ Recombinant Secondary Antibody, Alexa Fluor® 488 conjugate (Product # A28175) at a dilution of 1:2000 for 45 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant with DAPI (Product # S36938). F-actin (Panel c: red) was stained with Rhodamine Phalloidin (Product # R415, 1:300). Panel d represents the merged image showing localization to the cytoskeleton. Panel e represents control cells with no primary antibody to assess background. The images were captured at 60X magnification.

Alpha-Smooth Muscle Actin Antibody (14-9760-82)

Antibody specificity was demonstrated by the relative expression of target protein in different tissues by IHC. Differential expression of ACTA2 in mouse duodenum and mouse brain tissues using Alpha-Smooth Muscle Actin Monoclonal Antibody (1A4), eBioscience™ (Product # 14-9760-82) shows strong staining in mouse duodenum tissue and no staining in mouse brain tissue. (RE)

Alpha-Smooth Muscle Actin Antibody (14-9760-82) in ICC/IF

Immunocytochemistry of methanol-fixed and permeabilized HeLa cells using 1 µg/mL Anti-Alpha-Smooth Muscle Actin Purified, followed by 10 µg/mL F (ab')2 Anti-Mouse IgG eFluor® 570.
Alpha-Smooth Muscle Actin Antibody (14-9760-82)

Antibody specificity was demonstrated by detection of differential basal expression of the target across cell models tested owing to their inherent genetic constitution. Relative expression of Alpha-Smooth Muscle Actin was observed in C2C12 in comparison to Neuro-2a using Anti-Alpha-Smooth Muscle Actin Monoclonal Antibody (Product # 14-9760-82). [RE]

Immunohistochemical analysis of ACTA2 was performed using formalin-fixed paraffin-embedded mouse duodenum and mouse brain tissue sections. To expose the target protein, heat-induced epitope retrieval was performed on de-paraffinized sections using eBioscience™ IHC Antigen Retrieval Solution - Low pH (10X) (Product # 00-4955-58) diluted to 1X solution in water in a decloaking chamber at 110 degree Celsius for 15 minutes. Following antigen retrieval, the sections were blocked with 2% normal goat serum in 1X PBS for 45 minutes at room temperature and then probed with or without Alpha-Smooth Muscle Actin Monoclonal Antibody (1A4), eBioscience™ (Product # 14-9760-82) at 1:500 dilution in 0.1% normal goat serum overnight at 4 degree Celsius in a humidified chamber. Detection was performed using Goat anti-Mouse IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor Plus 488 (Product # A32723) at a dilution of 1:2000 in 0.1% normal goat serum for 45 minutes at room temperature. ReadyProbes™ Tissue Autofluorescence Quenching Kit (Product # R37630) was used to quench autofluorescence from the tissues. Nuclei were stained with DAPI (Product # D1306) and the sections were mounted using ProLong™ Glass Antifade Mountant (Product # P36984). The images were captured on EVOS™ M7000 Imaging System (Product # AMF7000) at 20X magnification.

Alpha-Smooth Muscle Actin Antibody (14-9760-82) in IHC (P)

Immunohistochemical analysis of ACTA2 was performed using formalin-fixed paraffin-embedded human ovarian carcinoma tissue sections. To expose the target protein, heat-induced epitope retrieval was performed on de-paraffinized sections using eBioscience™ IHC Antigen Retrieval Solution - High pH (10X) (Product # 00-4956-58) diluted to 1X solution in water in a decloaking chamber at 110 degree Celsius for 15 minutes. Following antigen retrieval, the sections were blocked with 2% normal goat serum in 1X PBS for 45 minutes at room temperature and then probed with or without Alpha-Smooth Muscle Actin Monoclonal Antibody (1A4), eBioscience™ (Product # 14-9760-82) at 1:100 dilution in 0.1% normal goat serum overnight at 4 degree Celsius in a humidified chamber. Detection was performed using Goat anti-Mouse IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor Plus 488 (Product # A32723) at a dilution of 1:2000 in 0.1% normal goat serum for 45 minutes at room temperature. ReadyProbes™ Tissue Autofluorescence Quenching Kit (Product # R37630) was used to quench autofluorescence from the tissues. Nuclei were stained with DAPI (Product # D1306) and the sections were mounted using ProLong™ Glass Antifade Mountant (Product # P36984). The images were captured on EVOS™ M7000 Imaging System (Product # AMF7000) at 20X magnification.

Alpha-Smooth Muscle Actin Antibody (14-9760-82)

Antibody specificity was demonstrated by detection of differential basal expression of the target across cell models tested owing to their inherent genetic constitution. Relative expression of Alpha-Smooth Muscle Actin was observed in C2C12 in comparison to Neuro-2a using Anti-Alpha-Smooth Muscle Actin Monoclonal Antibody (Product # 14-9760-80). [RE]
Alpha-Smooth Muscle Actin Antibody (14-9760-82) in IHC (P)

Nuclei are stained with DAPI. Immunohistochemistry of formalin-fixed paraffin embedded human infiltrating ductal carcinoma using 1 µg/mL Anti-Alpha-Smooth Muscle Actin Purified, followed by Anti-Mouse IgG Biotin, Streptavidin HRP and DAB visualization (right). Nuclei are counterstained with hematoxylin.

Alpha-Smooth Muscle Actin Antibody (14-9760-82) in WB

Western blot was performed using Anti-Alpha-Smooth Muscle Actin Mouse Monoclonal Antibody (Product # 14-9760-82) and a 42kDa band corresponding to Alpha-Smooth Muscle Actin was observed across cell line and tissues tested. Membrane enriched extracts (30 µg lysate) of C2C12 (Lane 1), tissue extracts of Mouse Heart (Lane 2) and Mouse Kidney (Lane 3) were electrophoresed using NuPAGE® 4-12 % Bis-Tris gel (Product # NP0322BOX). Resolved proteins were then transferred onto a nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (1:100 dilution) and detected by chemiluminescence with Goat anti-Mouse IgG (H+L), Superclonal™ Recombinant Secondary Antibody, HRP (Product # A28177, 1:4000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using Novex® ECL Chemiluminescent Substrate Reagent Kit (Product # WP20005). A 25 kDa band (*) corresponding to free IgG was also observed in the tissue extracts.

Alpha-Smooth Muscle Actin Antibody (14-9760-82) in WB

Western blot was performed using Anti-Alpha-Smooth Muscle Actin Mouse Monoclonal Antibody (Product # 14-9760-80) and a 42kDa band corresponding to Alpha-Smooth Muscle Actin was observed across cell line and tissues tested. Membrane enriched extracts (30 µg lysate) of C2C12 (Lane 1), tissue extracts of Mouse Heart (Lane 2) and Mouse Kidney (Lane 3) were electrophoresed using NuPAGE® 4-12 % Bis-Tris gel (Product # NP0322BOX). Resolved proteins were then transferred onto a nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (1:100 dilution) and detected by chemiluminescence with Goat anti-Mouse IgG (H+L), Superclonal™ Recombinant Secondary Antibody, HRP (Product # A28177, 1:4000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using Novex® ECL Chemiluminescent Substrate Reagent Kit (Product # WP20005). A 25 kDa band (*) corresponding to free IgG was also observed in the tissue extracts.
### 11 Immunohistochemistry References

<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pig / Not Cited</td>
<td>14-9760-82 was used in Immunohistochemistry to evaluate the cellular sources of TGF-1 and scar formation at the site of injury and examine in vitro whether the effects of TGF-1 could be attenuated by pirfenidone, using a swine model of ureteral injury with irreversible electroporation.</td>
</tr>
<tr>
<td>Mouse / Not Cited</td>
<td>14-9760 was used in Immunohistochemistry to investigate the roles and mechanisms of miR-135a underlying silica-induced pulmonary fibrosis.</td>
</tr>
<tr>
<td>Mouse / 1:1000</td>
<td>14-9760-82 was used in Immunohistochemistry to explore the roles of Annexin A2 (ANXA2) on hepatocyte pyroptosis and hepatic fibrosis in nonalcoholic steatohepatitis (NASH) and underlying molecular mechanism.</td>
</tr>
<tr>
<td>Mouse / 1:500</td>
<td>14-9760-82 was used in Immunohistochemistry to understand mechanisms underlying arteriovenous fistula failure owing to central venous stenosis.</td>
</tr>
<tr>
<td>Mouse / Not Cited</td>
<td>14-9760 was used in Immunohistochemistry-immunofluorescence to investigate the roles and mechanisms of miR-135a underlying silica-induced pulmonary fibrosis.</td>
</tr>
<tr>
<td>Mouse / Not Cited</td>
<td>14-9760-82 was used in Immunohistochemistry to evaluate whether irreversible electroporation can be used to induce urinary obstruction for a rat model of renal scarring.</td>
</tr>
<tr>
<td>Mouse / Not Cited</td>
<td>14-9760-82 was used in Immunohistochemistry to explore the expression of karyopherin alpha 2 in pancreatic ductal atypia and in normal pancreatic tissues.</td>
</tr>
<tr>
<td>Mouse / Not Cited</td>
<td>14-9760 was used in Immunohistochemistry to evaluate the cellular sources of TGF-1 and scar formation at the site of injury and examine in vitro whether the effects of TGF-1 could be attenuated by pirfenidone, using a swine model of ureteral injury with irreversible electroporation.</td>
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14-9760-82 was used in Immunohistochemistry to provide a new paradigm in which the -catenin-YAP signaling axis regulates the activation and tumor-promoting function of stromal fibroblasts.

**Human / 1:200**

Signal transduction and targeted therapy (Jan 2021; 4: )

"The -catenin/YAP signaling axis is a key regulator of melanoma-associated fibroblasts."  
PubMed Article URL: http://dx.doi.org/10.1038/s41392-019-0100-7

14-9760-82 was used in Immunohistochemistry to study acinar cell-derived pancreatic ductal adenocarcinoma (PDAC) initiation by developing a genetically engineered mouse model of PDAC.

**Mouse / 1:200**

14-9760-82 was used in Immunohistochemistry to study acinar cell-derived pancreatic ductal adenocarcinoma (PDAC) initiation by developing a genetically engineered mouse model of PDAC.

**Mouse / 1:200**

PloS one (Mar 2020; 14: )

"Desmoplasia and oncogene driven acinar-to-ductal metaplasia are concurrent events during acinar cell-derived pancreatic cancer initiation in young adult mice."  
Author(s): Johnson BL, D'Aincourt Salazar M, Mackenzie-Dyck S, D'Apuzzo M, Shi H, HP, Manuel ER, Diamond DJ  
PubMed Article URL: http://dx.doi.org/10.1371/journal.pone.0221810

14-9760-82 was used in Immunohistochemistry-immunofluorescence to discover that 4-aminoypyridine causes faster wound closure, restoration of normal-appearing skin architecture, and reinnervation.

**Mus e / 1:200**

14-9760-82 was used in Immunohistochemistry to study acinar cell-derived pancreatic ductal adenocarcinoma (PDAC) initiation by developing a genetically engineered mouse model of PDAC.

**Mouse / 1:200**

Biomedicines (Jul 2022; 10: )

"4-Aminopyridine Induces Nerve Growth Factor to Improve Skin Wound Healing and Tissue Regeneration."  
Author(s): Jagadeeshaprasad MG, Govindappa PK, Nelson AM, Noble MD, Elfar JC  
PubMed Article URL: http://dx.doi.org/10.3390/biomedicines10071649

14-9760-82 was used in Immunohistochemistry to demonstrate that the combination of fully reduced HMGB1-LDI-Gly polymer provides a new tissue engineering approach for large full-thickness skin wound healing.

**Rat / 1:350**

Macromolecular bioscience (Feb 2022; 22: )

"Modeling ascending Ureaplasma parvum infection through the female reproductive tract using vagina-cervix-decidual-organ-on-a-chip and feto-maternal interface-organ-on-a-chip."

Author(s): Tantengco OAG, Richardson LS, Radnaa E, Kammala AK, Kim S, Medina PMB, Han A, Menon R  
PubMed Article URL: http://dx.doi.org/10.1002/mabi.202100403

**7 Immunocytochemistry References**

<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
</tr>
</thead>
</table>
| **Mouse / 1:200**   | Frontiers in physiology (Oct 2020; 8: )  
Author(s): Bakhtyar N, Jeschke MG, Mainville L, Herer E, Amini-Nik S  
PubMed Article URL: http://dx.doi.org/10.3389/fphys.2017.00200 |
| Human / Not Cited  | FASEB journal : official publication of the Federation of American Societies for Experimental Biology (Oct 2022; 36: )  
"Modeling ascending Ureaplasma parvum infection through the female reproductive tract using vagina-cervix-decidual-organ-on-a-chip and feto-maternal interface-organ-on-a-chip."  
Author(s): Tantengco OAG, Richardson LS, Radnaa E, Kammala AK, Kim S, Medina PMB, Han A, Menon R  
PubMed Article URL: http://dx.doi.org/10.1096/fj.202200872R |
| Human / 1:100      | EBioMedicine (Mar 2021; 65: )  
"The KLB rs17618244 gene variant is associated with fibrosing MAFLD by promoting hepatic stellate cell activation."  
PubMed Article URL: http://dx.doi.org/10.1016/j.ebiom.2021.103249 |


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14-9760-82 was used in Immunohistochemistry on paraffin embedded tissues to investigate the effects of treatment with acellular gelatinous Wharton’s jelly on wound healing in vitro and in vivo.

**Mouse / 1:200**

14-9760-82 was used in Immunohistochemistry to study acinar cell-derived pancreatic ductal adenocarcinoma (PDAC) initiation by developing a genetically engineered mouse model of PDAC.

14-9760-82 was used in Immunohistochemistry-immunofluorescence to report the colonization of U. parvum in various cell types; however, inconsistent, and low-grade inflammation across multiple cell types suggests poor immunogenicity induced by U. parvum.

**Human / Not Cited**

14-9760-82 was used in Immunohistochemistry-immunofluorescence to demonstrate that the combination of fully reduced HMGB1-LDI-Gly polymer provides a new tissue engineering approach for large full-thickness skin wound healing.

14-9760-82 was used in Immunohistochemistry to provide a new paradigm in which the -catenin-YAP signaling axis regulates the activation and tumor-promoting function of stromal fibroblasts.

**Human / 1:100**

14-9760-82 was used in Immunohistochemistry to reveal a signaling pathway wherein leptin modulates NMDARs via Src to regulate -cell excitability and suggests NMDARs as a potential target to overcome leptin resistance.
14-9760-82 was used in Immunocytochemistry to demonstrate if differently-oriented scaffold fibers direct cell and extracellular matrix (ECM) organisation, and if scaffold fibers and extracellular matrix protein networks are maintained after decellularization.

**Mouse / 1:100**


"A multilayered scaffold for regeneration of smooth muscle and connective tissue layers."

Author(s): Garrison CM,Singh-Varma A,Pastino AK,Steele JAM,Kohn J,Murthy NS,Schwarzbauer JE

PubMed Article URL:http://dx.doi.org/10.1002/jbma.37058

14-9760 was used in Immunocytochemistry-immunofluorescence to identify heterogeneity in the tumour microenvironment of oral squamous cell carcinoma T1N0M0 samples which may contribute to poor early prognosis.

**Human / Not Cited**

Annals of translational medicine (Nov 2020; 8: )

"Hyperion imaging system reveals heterogeneous tumor microenvironment of oral squamous cell carcinoma patients at T1N0M0 stage."

Author(s): Xie S,Shan XF,Yau V,Zhang JY,Zhang XY,Yan YP,Cai ZG

PubMed Article URL:http://dx.doi.org/10.21037/atm-20-7194

14-9760-82 was used in Immunohistostaining to provide a new paradigm in which the -catenin-YAP signaling axis regulates the activation and tumor-promoting function of stromal fibroblasts.

**Human / 1:200**

Signal transduction and targeted therapy (Jan 2021; 4: )

"The -catenin/YAP signaling axis is a key regulator of melanoma-associated fibroblasts."

Author(s): Liu T,Zhou Y,Yang K,Iwasawa K,Kadecaro AL,Takebe T,Andl T,Zhang Y

PubMed Article URL:http://dx.doi.org/10.1038/s41392-019-0100-7

14-9760-82 was used in Immunohistocytochemistry to create and characterise a human-induced pluripotent stem cell line (SDUKII002-A) from a 22-year old autistic male identified in the "FYNEN-cohort" of Southern Denmark.

**Human / Not Cited**

Stem cell research (Jul 2020; 46: )

"Generation of human induced pluripotent stem cells (SDUKII002-A) from a 22-year-old male diagnosed with autism spectrum disorder."

Author(s): Kamand M,Lieva M,Forsberg SL,Thomasen M,Fex Svenningsen Å,Holst B,Meyer M,Michel TM

PubMed Article URL:http://dx.doi.org/10.1016/j.stem.2020.101834

### 3 Western Blot References

<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mouse / 5 µg/ml</strong></td>
<td>14976082 was used in western blot to study the effect of intranasal curcumin on airway remodeling and fibrosis in murine model of chronic asthma.</td>
</tr>
<tr>
<td><strong>Mouse / 1:500</strong></td>
<td>Inflammation (Feb 2017; 40: 248) &quot;Intranasal Curcumin Inhibits Pulmonary Fibrosis by Modulating Matrix Metalloproteinase-9 (MMP-9) in Ovalbumin-Induced Chronic Asthma.&quot; Author(s): Chauhan PS,Dash D,Singh R PubMed Article URL:<a href="http://dx.doi.org/10.1007/s10753-016-0475-3">http://dx.doi.org/10.1007/s10753-016-0475-3</a></td>
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<td><strong>Human / Not Cited</strong></td>
<td>14-9760-82 was used in Immunohistocytochemistry to discover that 4-aminopyridine causes faster wound closure, restoration of normal-appearing skin architecture, and reinnervation.</td>
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### 1 Miscellaneous PubMed References

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Hyperion imaging system reveals heterogeneous tumor microenvironment of oral squamous cell carcinoma patients at T1N0M0 stage.

Author(s): Xie S,Shan XF,Yau V,Zhang JY,Zhang XY,Yan YP,Cai ZG

PubMed Article URL:http://dx.doi.org/10.21037/atm-20-7194

Generation of human induced pluripotent stem cells (SDUKII002-A) from a 22-year-old male diagnosed with autism spectrum disorder.

Author(s): Kamand M,Lieva M,Forsberg SL,Thomasen M,Fex Svenningsen Å,Holst B,Meyer M,Michel TM

PubMed Article URL:http://dx.doi.org/10.1016/j.stem.2020.101834

Intranasal Curcumin Inhibits Pulmonary Fibrosis by Modulating Matrix Metalloproteinase-9 (MMP-9) in Ovalbumin-Induced Chronic Asthma.

Author(s): Chauhan PS,Dash D,Singh R

PubMed Article URL:http://dx.doi.org/10.1007/s10753-016-0475-3

Differential effects of low-dose sacubitril and/or valsartan on renal disease in salt-sensitive hypertension.


PubMed Article URL:http://dx.doi.org/10.1152/ajprenal.00125.2020
Human / Not Cited

"Thermo Fisher Scientific
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San Diego, CA 92121

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1 In vitro Assay References

**Species / Dilution**

**Summary**

14-9760-82 was used in In vitro Assay to validate the expression of pluripotency markers, differentiation into the three germ layers, and absence of chromosomal abnormalities.

Human / 1:500

"Derivation of induced pluripotent stem cells (SDUKi003-A) from a 20-year-old male patient diagnosed with Asperger syndrome."

Author(s): Kamand M, Ilieva M, Louise Forsberg S, Thomassen M, Meyer M, Fex Svenningsen Å, Maria Michel T

PubMed Article URL: http://dx.doi.org/10.1016/j.scr.2020.101974

1 Immunohistochemistry (Paraffin) References

**Species / Dilution**

**Summary**

14-9760-82 was used in Immunohistochemistry (Paraffin) to investigate myoepithelial cells in normal breast tissues of BRCA1 and BRCA2 germline mutation carriers and in non-carrier controls, and in sporadic DCIS.

Human / Not Cited

"Perturbed myoepithelial cell differentiation in BRCA mutation carriers and in ductal carcinoma in situ."


PubMed Article URL: http://dx.doi.org/10.1038/s41467-019-12125-5

1 Immunohistochemistry (Frozen) References

**Species / Dilution**

**Summary**

14-9760 was used in Immunofluorescence on frozen tissues to indicate that a restricted myocyte population expresses -CAA and suggest a high capacity of self-regeneration in muscle cells.

Rat / 1:50

"Monoclonal antibodies against muscle actin isoforms: epitope identification and analysis of isoform expression by immunoblot and immunostaining in normal and regenerating skeletal muscle."

Author(s): Chaponnier C, Gabbiani G

PubMed Article URL: http://dx.doi.org/10.12688/f1000research.8154.2

14-9760-82 was used in Mass Cytometry to identify early processes and potential biomarkers, including CAMK2N1, MNX1, ADCY5, HOXC11 and ANKRDR22, whose reduced expression is associated with the progression of DCIS to invasive breast cancer.

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