**CD117 (c-Kit) Monoclonal Antibody (ACK2), eBioscience™**

**Catalog Number** 14-1172-82

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### Details

- **Size**: 100 µg
- **Host/Isotype**: Rat / IgG2b, kappa
- **Class**: Monoclonal
- **Type**: Antibody
- **Clone**: ACK2
- **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, Mouse, Human, Chicken, Not Applicable, Guinea pig

### Tested Applications

- **Flow Cytometry (Flow)**: 0.125 µg/test
- **Functional Assay (FN)**: Assay-Dependent
- **Immunohistochemistry (Frozen) (IHC (F))**: Assay-Dependent
- **Immunoprecipitation (IP)**: Assay-Dependent
- **Western Blot (WB)**: 1:1,000

### Published Applications

- **Immunohistochemistry (IHC)**: See 16 publications below
- **Immunocytochemistry (ICC/IF)**: See 9 publications below
- **Flow Cytometry (Flow)**: See 21 publications below
- **Western Blot (WB)**: See 2 publications below
- **Functional Assay (FN)**: See 2 publications below
- **Neutralization (Neu)**: See 1 publications below
- **Inhibition Assays (IA)**: 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.

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### Background/Target Information

**c-Kit**, also known as mast/stem cell growth factor receptor (SCFR) or CD117, is a trans membrane type III tyrosine kinase receptor encoded by the c-Kit proto-oncogene, located on chromosome 4 in humans. It is expressed in hematopoietic stem cells, germ cells, mast cells and gastrointestinal tract Cajal cells. Upon binding of its ligand stem cell factor (SCF), c-kit dimerizes, resulting in receptor activation and autophosphorylation of various tyrosine residues including tyrosine 703 located on the cytoplasmic domain of the receptor. This modification allows docking of Grb2 and activation of the Ras/ERK signaling pathway. c-Kit also plays a role in signaling and activation of these cells. ACK2 has been reported to be a blocking antibody. Applications Tested: The ACK2 antibody has been tested by flow cytometric analysis of mouse bone marrow cells. This can be used at less than or equal to 0.125 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10^5 to 10^8 cells/test. 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.

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**Product specific information**

**Description**: The ACK2 monoclonal antibody reacts with mouse CD117, also known as c-Kit receptor. Steel factor receptor and stem cell factor receptor. A member of the tyrosine kinase receptor family, this 145 kDa molecule is expressed by a majority of hematopoietic progenitor cells characterized in the mouse bone marrow as a small subset of cells positive for Sca-1 and Thy1 (Thy1^lo) and negative for lineage markers. The interaction of the mouse c-kit receptor and steel factor promotes the proliferation and differentiation of hematopoietic progenitor cells. CD117 is also expressed by mast cells and plays a role in signaling and activation of these cells. ACK2 has been reported to be a blocking antibody. Applications Reported: The ACK2 antibody has been reported for use in flow cytometric analysis, immunoprecipitation, immunoblotting (WB), and immunohistochemical staining of frozen tissue sections. It has also been reported for use in functional assays. (Please use Functional Grade purified ACK2, cat. 16-1172, in functional assays.) (Fluorochrome-conjugated ACK2 is recommended for use in flow cytometric analysis..) Applications Tested: The ACK2 antibody has been tested by flow cytometric analysis of mouse bone marrow cells. This can be used at less than or equal to 0.125 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10^5 to 10^8 cells/test. 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.


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Product Images For CD117 (c-Kit) Monoclonal Antibody (ACK2), eBioscience™

**CD117 (c-Kit) Antibody (14-1172-82) in WB**

Western blot was performed using Anti-CD117 (c-Kit) Monoclonal Antibody (ACK2), eBioscience™ (Product # 14-1172-82) and a 55kDa band corresponding to Mast/stem cell growth factor receptor Kit was observed across tissues tested. Whole cell extracts (30 µg lysate) of Mouse Lung (Lane 1), Mouse Bone Marrow (Lane 2), Rat Bone Marrow (Lane 3), Mouse Kidney (Lane 4), Rat Kidney (Lane 5), Rat Lung (Lane 6), Mouse Spleen (Lane 7), Rat Spleen (Lane 8), Mouse Thymus (Lane 9) were electrophoresed using NuPAGE™ 4-12% Bis-Tris Protein 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 (1:1000 Dilution) and detected by chemiluminescence with F(ab2-Rabbit anti-Rat IgG (H+L Secondary Antibody, HRP (Product # PA1-29927, 1:4000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using Novex® ECL Chemiluminescent Substrate Reagent Kit (Product # WP20005). Expression of cKIT was found to be higher in Mouse bone marrow, Rat bone marrow, Mouse spleen and Mouse thymus as compared to Mouse lung, Rat lung, Mouse kidney and rat kidney.
## Immunohistochemistry References

<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
</tr>
</thead>
</table>
| **Mouse / Not Cited** | Frontiers in pharmacology (Jul 2022; 13: )  
*Effects of Xiao Chengqi Formula on Slow Transit Constipation by Assessing Gut Microbiota and Metabolomics Analysis* *(<i>in vitro</i> and <i>in vivo</i>)*  
PubMed Article URL: [http://dx.doi.org/10.3389/fphar.2022.864598](http://dx.doi.org/10.3389/fphar.2022.864598) |
| **Guinea pig / 1:100** | 14-1172 was used in Immunohistochemistry to identify and elucidate the physiological relevance of Ca2+-activated K+ currents in freshly isolated guinea pig interstitial cells of Cajal. |
| **Mouse / Not Cited** | Journal of Korean medical science (Jun 2009; 24: 384)  
"Ca2+-activated K+ current in freshly isolated c-Kit positive cells in guinea-pig stomach."  
Author(s): Kim YC, Suzuki H, Xu WX, Choi W, Kim SH, Lee SJ  
| **Mouse / 1:200** | Neuron (Feb 2008; 57: 501)  
"Stem cell factor functions as an outgrowth-promoting factor to enable axon exit from the midline intermediate target."  
Author(s): Gore BB, Wong KG, Tessier-Lavigne M  
PubMed Article URL: [http://dx.doi.org/10.1016/j.neuron.2008.01.006](http://dx.doi.org/10.1016/j.neuron.2008.01.006) |
| **Mouse / Not Cited** | Development (Cambridge, England) (Dec 2010; 137: 3941)  
"Regulation of hematopoietic cell clusters in the placental niche through SCF/Kit signaling in embryonic mouse."  
Author(s): Sasaki T, Mizuochi C, Horio Y, Nakao K, Akashi K, Sugiyama D  
PubMed Article URL: [http://dx.doi.org/10.1242/dev.051359](http://dx.doi.org/10.1242/dev.051359) |
| **Mouse / Not Cited** | 14-1172 was used in Immunohistochemistry to examine the role and mechanisms of stem cell factor as a guidance cue in the central nervous system. |
| **Mouse / Not Cited** | Biology of reproduction (Aug 2010; 83: 244)  
"Time-dependent disruption of oviduct pacemaker cells by Chlamydia infection in mice."  
Author(s): Dixon RE, Ramsey KH, Schripsema JH, Sanders KM, Ward SM  
PubMed Article URL: [http://dx.doi.org/10.1095/biolreprod.110.083808](http://dx.doi.org/10.1095/biolreprod.110.083808) |
| **Mouse / Not Cited** | Neuropathology (Feb 2008; 22: 462)  
"Lack of serotonin 5-HT2B receptor alters proliferation and network volume of interstitial cells of Cajal in vivo."  
| **Mouse / Not Cited** | 14-1172 was used in Immunohistochemistry to identify TXA(2) and PGI(2) production as gender-related proatherogenic risk factors. |
| **Mouse / Not Cited** | Journal of physiology and pharmacology : an official journal of the Polish Physiological Society (Jun 2010; 61: 309)  
"Increased aortic atherosclerotic plaque development in female apolipoprotein E-null mice is associated with elevated thromboxane A2 and decreased prostacyclin production."  
Author(s): Smith DD, Tan X, Tawfik O, Milne G, Stechschulte DJ, Dileepan KN  

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14-1172 was used in Immunohistochemistry-immunofluorescence to investigate the characteristics of TRPM7 channels in human intestinal interstitial cells of Cajal.

Mouse / Not Cited

"Diabetic cdx-1/- mice lacking macrophages are protected against the development of delayed gastric emptying."

Author(s): Cipriani G, Gibbons SJ, Verhulst PJ, Choi KM, Eisenman ST, Hein SS, Ordog T, Linden DR, Furgiugia G

PubMed Article URL: http://dx.doi.org/10.1016/j.jcmgh.2015.09.001

14-1172 was used in Immunohistochemistry to investigate the role of signalling via THPO and its receptor, MPL, in the interaction of quiescent HSCs with their niche.

Mouse / Not Cited

"Identification of TRPM7 channels in human intestinal interstitial cells of Cajal."

Author(s): Kim BJ, Park KK, Kim HW, Choi SJ, Sun JY, Chang IY, Jeon JH, So I, Kim SJ


14-1172 was used in Immunohistochemistry to investigate the role of signalling via THPO and its receptor, MPL, in the interaction of quiescent HSCs with their niche.

Mouse / Not Cited

"Thrombopoietin/MPL signaling regulates hematopoietic stem cell quiescence and interaction with the osteoblastic niche."


PubMed Article URL: http://dx.doi.org/10.1016/j.stem.2007.10.020

14-1172 was used in Immunohistochemistry to investigate the molecular and functional diversity of GABA-A receptors in the mouse colon.

Mouse / 1:250

"Molecular and functional diversity of GABA-A receptors in the enteric nervous system of the mouse colon."


PubMed Article URL: http://dx.doi.org/10.1523/JNEUROSCI.0441-14.2014

14-1172 was used in Immunohistochemistry to investigate the role of signalling via THPO and its receptor, MPL, in the interaction of quiescent HSCs with their niche.

Mouse / Not Cited

"Molecular and functional diversity of GABA-A receptors in the enteric nervous system of the mouse colon."

Author(s): Kim BJ, Park KK, Kim HW, Choi SJ, Sun JY, Chang IY, Jeon JH, So I, Kim SJ


14-1172 was used in Immunohistochemistry to investigate the role of signalling via THPO and its receptor, MPL, in the interaction of quiescent HSCs with their niche.

Mouse / Not Cited

"Aging-dependent decrease in the numbers of enteric neurons, interstitial cells of Cajal and expression of connexin43 in various regions of gastrointestinal tract."


PubMed Article URL: http://dx.doi.org/10.18632/aging.101677

14-1172 was used in Immunohistochemistry-immunofluorescence to study ageing-associated differences between different organs and the exact time to start degenerating.
14-1172 was used in Immunohistochemistry to suggest that ageing is associated with a reduction in the network volume of ICC in the terminal GI tract, which may influence the normal function of these regions.

Mouse / Not Cited  
Journal of cellular and molecular medicine (Oct 2018; 22: 5160)  
"Interstitial cell network volume is reduced in the terminal bowel of ageing mice."  
Author(s): Gamage PPKM, Patel BA, Yeoman MS, Ranson RN, Saffrey MJ  
PubMed Article URL:http://dx.doi.org/10.1111/jcmm.13794

9 Immunocytochemistry References

<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mouse / Not Cited</td>
<td>14-1172 was used in Immunocytochemistry to study whether bone marrow-derived cells can differentiate into Interstitial cells of Cajal and contribute to their regeneration using GFP-transgenic mice.</td>
</tr>
<tr>
<td>Mouse / Not Cited</td>
<td>14-1172 was used in Immunocytochemistry to test the hypothesis that mechanical dilation in obstruction disrupts the ICC network and that ICC do not mediate mechanotranscription of COX-2.</td>
</tr>
</tbody>
</table>
| Mouse / 1:20       | PloS one (Jun 2014; 8:)  
"Are interstitial cells of Cajal involved in mechanical stress-induced gene expression and impairment of smooth muscle contractility in bowel obstruction?"  
Author(s): Wu CC, Lin YM, Gao J, Winston JH, Cheng LK, Shi XZ  
PubMed Article URL:http://dx.doi.org/10.1371/journal.pone.0076222 |
| Mouse / Not Cited  | 14-1172 was used in Immunofluorescence to test the hypothesis that mechanical dilation in obstruction disrupts the ICC network and that ICC do not mediate mechanotranscription of COX-2. |
| Mouse / Not Cited  | 14-1172 was used in Immunocytochemistry to determine if secreted factors from M1 macrophages could injure mouse interstitial cells of Cajal in primary culture. |
| Mouse / Not Cited  | 14-1172 was used in Immunochemistry to elucidate the origins of the calcium transients. |
| Mouse / Not Cited  | 14-1172 was used in Immunocytochemistry to suggest that sulphonylurea receptors (SUR) can modulate pacemaker [Ca2+]i oscillations via voltage-independent mechanism(s). |
| Mouse / Not Cited  | 14-1172 was used in Immunofluorescence to test the hypothesis that mechanical dilation in obstruction disrupts the ICC network and that ICC do not mediate mechanotranscription of COX-2. |
| Mouse / Not Cited  | 14-1172 was used in Immunocytochemistry to determine if secreted factors from M1 macrophages could injure mouse interstitial cells of Cajal in primary culture. |
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| Mouse / Not Cited  | 14-1172 was used in Immunocytochemistry to determine if secreted factors from M1 macrophages could injure mouse interstitial cells of Cajal in primary culture. |


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14-1172 was used in Immunofluorescence to demonstrate a critical role for LOX in premetastatic niche formation.

Mouse / Not Cited

**Cancer cell** (Jan 2009; 15: 35)

"Hypoxia-induced lysyl oxidase is a critical mediator of bone marrow cell recruitment to form the premetastatic niche."

Author(s): Erler JT, Bennewith KL, Cox TR, Lang G, Bird D, Koong A, Le QT, Giaccia AJ

PubMed Article URL: http://dx.doi.org/10.1016/j.ccr.2008.11.012

Mouse / 1:100

14-1172 was used in Immunofluorescence to assess the variations of interstitial cells of Cajal (ICC) and explore the changes in mSCF/KIT-ETV1 signaling in the antrum and corpus of diabetic mice after treatment with EA.

Mouse / Not Cited

**Evidence-based complementary and alternative medicine : eCAM** (Mar 2022; 17: )

"Electroacupuncture at ST36 Protects ICC Networks via mSCF/KIT-ETV1 Signaling in the Stomach of Diabetic Mice."

Author(s): Tian L, Zhu B, Liu S

PubMed Article URL: http://dx.doi.org/10.1155/2017/3980870

Mouse / Not Cited

14-1172-82 was used in Immunochemistry to examine whether 5-hydroxytryptamine plays a role in regulating the proliferation of interstitial cells of Cajal.

Mouse / Not Cited

**Gastroenterology** (Sep 2007; 133: 897)

"Exogenous serotonin regulates proliferation of interstitial cells of Cajal in mouse jejunum through 5-HT2B receptors."

Author(s): Wouters MM, Gibbons SJ, Roeder JL, Distad M, Ou Y, Strege PR, Szurszewski JH, Farrugia G

PubMed Article URL: http://dx.doi.org/10.1053/j.gastro.2007.06.017

### 21 Flow Cytometry References

#### Species / Dilution

<table>
<thead>
<tr>
<th>Summary</th>
<th>14-1172 was used in Flow cytometry/Cell sorting to show that inactivation of the Mll5 gene in mice results in the reduction in frequency and function of haematopoietic stem cells.</th>
</tr>
</thead>
</table>
| Mouse / Not Cited | Blood (Feb 2009; 113: 1455)

"MLL5 contributes to haematopoietic stem cell fitness and homeostasis."

Author(s): Zhang Y, Wong J, Klinger M, Tran MT, Shannon KM, Killeen N

PubMed Article URL: http://dx.doi.org/10.1182/blood-2008-05-159905 |
| Mouse / Not Cited | Clinical cancer research : an official journal of the American Association for Cancer Research (May 2014; 20: 2350)

"Increased KIT inhibition enhances therapeutic efficacy in gastrointestinal stromal tumor." |


PubMed Article URL: http://dx.doi.org/10.1158/0007-0423.CCR-13-10303 |
| Mouse / Not Cited | The American journal of pathology (Sep 2008; 173: 792)

"Long-term survival of transplanted stem cells in immunocompetent mice with muscular dystrophy." |

Author(s): Wallace GQ, Lapidos KA, Kenik JS, McNally EM

PubMed Article URL: http://dx.doi.org/10.2353/ajpath.2008.080259 |
| Mouse / 1:50 | Development (Cambridge, England) (May 2012; 139: 1734)

"FGF2 mediates mouse spermatogonial stem cell self-renewal via upregulation of Etv5 and Bcl6b through MAP2K1 activation." |

Author(s): Ishii K, Kanatsu-Shinohara M, Toyokuni S, Shinohara T

PubMed Article URL: http://dx.doi.org/10.1242/dev.076539 |
| Mouse / Not Cited | Stem cells (Dayton, Ohio) (Oct 2010; 28: 1882)

"ETV5 regulates testicular cell chemokines involved in mouse stem/progenitor spermatogonial maintenance." |

Author(s): Simon L, Ekman GC, Garcia T, Barnes K, Zhang Z, Murphy M, Hess RA, Cooke PS, Hofmann MC

PubMed Article URL: http://dx.doi.org/10.1002/stem.508


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14-1172 was used in Flow cytometry/Cell sorting to investigate how prior exposure to cytotoxic therapy influences leukemogenesis and TP53 mutations in t-AML/t-MDS patients.

Mouse / Not Cited  
Nature (Feb 2015; 518: 552)  
"Role of TP53 mutations in the origin and evolution of therapy-related acute myeloid leukaemia."  
PubMed Article URL: http://dx.doi.org/10.1038/nature13968

Mouse / Not Cited  
The Journal of experimental medicine (Apr 2014; 211: 635)  
"The transcription factor E4bp4/Nfil3 controls commitment to the NK lineage and directly regulates Eomes and Id2 expression."  
Author(s): Male M, Nisol I, Kostrzewski T, Allan DS, Carlyle JR, Lord GM, Wack A, Brady HJ  
PubMed Article URL: http://dx.doi.org/10.1084/jem.20132398

Mouse / Not Cited  
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"COP1 targets C/EBP for degradation and induces acute myeloid leukemia via Trb1."  
Author(s): Yoshida A, Kato JY, Nakamae I, Yoneda-Kato N  
PubMed Article URL: http://dx.doi.org/10.1182/blood-2012-12-476101

Mouse / Not Cited  
Science advances (Jan 2018; 4: )  
"Discrete roles and bifurcation of PTEN signaling and mTORC1-mediated anabolic metabolism underlie IL-7-driven B lymphopoiesis."  
PubMed Article URL: http://dx.doi.org/10.1126/sciadv.aar5701

Mouse / Not Cited  
Cell death & disease (Nov 2016; 7: )  
"GRK6 regulates ROS response and maintains hematopoietic stem cell self-renewal."  
Author(s): Le Q, Yao W, Chen Y, Yan B, Liu C, Yuan M, Zhou Y, Ma L  
PubMed Article URL: http://dx.doi.org/10.1038/cddis.2016.377

Mouse / Not Cited  
Immunity (Jun 2006; 24: 801)  
"Toll-like receptors on hematopoietic progenitor cells stimulate innate immune system replenishment."  
Author(s): Nagai Y, Garrett KP, Ohita S, Bahrur N, Kouro T, Akira S, Takeuchi K, Kincade PW  
PubMed Article URL: http://dx.doi.org/10.1016/j.immuni.2006.04.008

Mouse / Not Cited  
PloS one (Jun 2012; 7: )  
"Extra-thymic physiological T lineage progenitor activity is exclusively confined to cells expressing either CD127, CD90, or high levels of CD117."  
Author(s): Saran N, Pope Moreno A, Witzlau K, Reh G, Krueger M, Krueger A  
PubMed Article URL: http://dx.doi.org/10.1371/journal.pone.0030864

Mouse / Not Cited  
The Journal of experimental medicine (Feb 2013; 210: 339)  
"HDL and Glut1 inhibition reverse a hypermetabolic state in mouse models of myeloproliferative disorders."  
Author(s): Gautier EL, Westerterp M, Bhagwat N, Cremers S, Shih A, Abdel-Wahab O, Luftjohann D, Randolph GJ, Levine RL, Tall AR, Yvan-Charvet L  
PubMed Article URL: http://dx.doi.org/10.1084/jem.20121357
14-1172 was used in Flow cytometry/Cell sorting to determine that antiviral immune responses may induce sustained alterations in natural killer cell populations.

**Mouse / Not Cited**


Author(s):Busche A,Schmitz S,Fleige H,Robbins SH,Walzer T,Stewart CA,Förster R,Messerle M,Prinz I

PubMed Article URL:http://dx.doi.org/10.4049/jimmunol.1003232

14-1172 was used in Flow cytometry/Cell sorting to determine the sex of collected chicken (Galbus gallus) pluripotent embryonic stem cells (ESCs) and primordial germ cells (PGCs) by identifying specific sex markers via polymerase chain reaction (PCR) and fluorescence activated cell sorter (FACS).

**Chicken / 1:100**

Animals : an open access journal from MDPI (Nov 2020; 10: ) "Transcriptome Sequencing and Comparative Analysis of Amphoteric ESCs and PGCs in Chicken (<i>Gallus gallus</i>)/b."


PubMed Article URL:http://dx.doi.org/10.3390/an10122228

14-1172 was used in Flow cytometry/Cell sorting to investigate the mechanism by which perivascular mast cells acquire IgE from the blood.

**Mouse / Not Cited**

Immunity (Jan 2013; 38: 166) "Perivascular mast cells dynamically probe cutaneous blood vessels to capture immunoglobulin E."

Author(s):Cheng LE,Hartmann K,Roers A,Krummel MF,Locksley RM

PubMed Article URL:http://dx.doi.org/10.1016/j.immuni.2012.09.022

14-1172 was used in Flow cytometry/Cell sorting to show that malignant melanoma has the ability to undergo phenotypic change by a cell-intrinsic/autonomous mechanism that can be characterised by Met expression.

**Mouse / Not Cited**

Oncotarget (Oct 2016; 7: 70779) "Different growth and metastatic phenotypes associated with a cell-intrinsic change of Met in metastatic melanoma."

Author(s):Adachi E,Sakai K,Nishiuchi T,Imamura R,Sato H,Matsumoto K

PubMed Article URL:http://dx.doi.org/10.18632/oncotarget.12221

14117282 was used in flow cytometry to find a role for Car enzymes in regulating mast cell lineage commitment

**Mouse / Not Cited**


Author(s):Henry EK,Sy CB,Inclan-Rico JM,Esponosa V,Ghanny SS,Dwyer DF,Soteropoulos P,Rivera A,Siracusa MC

PubMed Article URL:http://dx.doi.org/10.1084/jem.20151739

14-1172 was used in Flow cytometry/Cell sorting to investigate the interaction between leukemia-initiating cells and normal hematopoietic cells at the early phase of chronic myeloid leukaemia, showing MIP-1/CCL3-mediated maintenance of initiating cells.

**Mouse / Not Cited**


Author(s):Baba T,Naka K,Morishita S,Komatsu N,Hirao A,Mukaida N

PubMed Article URL:http://dx.doi.org/10.1084/jem.20130112

14-1172-85 was used in Immunocytochemistry, Flow Cytometry to report a PGC-related marker gene: C1EIP (Chromosome 1 Expression in PGCs), whose activation and expression are regulated by the transcription factor STAT3 (signal transducer and activator of transcription 3), histone acetylation, and promoter methylation. C1EIP regulates PGCs formation by mediating the expression of PGC-associated genes, such as CVH (Chicken Vasa Homologous) and CKIT (Chicken KIT proto-oncogene).

**Chicken / 1:100**

Frontiers in genetics (Sep 2020; 11: ) "C1EIP Functions as an Activator of ENO1 to Promote Chicken PGCs Formation via Inhibition of the Notch Signaling Pathway."

Author(s):Jin K,Li D,Jin J,Song J,Zhang Y,Chang G,Chen G,Li B

PubMed Article URL:http://dx.doi.org/10.3389/fgene.2020.00751

14-1172-82 was used in Flow cytometry/Cell sorting to demonstrate the feasibility of avian cloning from somatic cells.

**Chicken / Not Cited**

Nature communications (May 2021; 12: ) "Production of viable chicken by allogeneic transplantation of primordial germ cells induced from somatic cells."


PubMed Article URL:http://dx.doi.org/10.1038/s41467-021-23242-5

**2 Western Blot References**

<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mouse / 1:1000</td>
<td>14-1172-82 was used in Western Blot to show LP-CQPC01 could be used as a new starter to produce high-quality soybean milk, which might be used as a functional drink.</td>
</tr>
<tr>
<td>Mouse / 1:1000</td>
<td>14-1172-82 was used in Western Blot to compare the prevention effects of Shuidouchi with different fermentation times on constipation in mice.</td>
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</table>

**2 Functional Assay References**

<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
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<tbody>
<tr>
<td>Mouse / Not Cited</td>
<td>14-1172-82 was used in Functional assay to characterize the role of CK1 (encoded by Csnk1a1) in skin physiology.</td>
</tr>
<tr>
<td>Mouse / Not Cited</td>
<td>14-1172 was used in Functional assays to demonstrate that HSCs exhibiting enhanced self-renewal potential can be isolated based on c-Kit expression during both steady state and stress haematopoiesis.</td>
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</table>

**1 Neutralization References**

<table>
<thead>
<tr>
<th>Species / Dilution</th>
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<tbody>
<tr>
<td>Mouse / Not Cited</td>
<td>14-1172 was used in Neutralization experiments to demonstrate that potentiation of the immune response by imatinib may facilitate clearance of diverse microbial pathogens.</td>
</tr>
</tbody>
</table>

**1 Inhibition Assays References**

<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
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<tbody>
<tr>
<td>Rat / 1:625</td>
<td>14-1172 was used in Blocking experiments to demonstrate that 4-vinylcyclohexene diepoxide induces ovoicity by direct inhibition of KIT autophosphorylation of the oocyte.</td>
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