TGF beta-1 Monoclonal Antibody (TB21)

Catalog Number  MA5-16949

Details

Size  100 µg
Host/Isotype  Mouse / IgG1
Class  Monoclonal
Type  Antibody
Clone  TB21
Immunogen  Human Transforming Growth Factor Beta 1 from platelets
Conjugate  Unconjugated
Form  Liquid
Concentration  1 mg/mL
Purification  Affinity chromatography
Storage buffer  PBS
Contains  <0.1% sodium azide
Storage Conditions  Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

Species Reactivity

Species reactivity  Human, Mustelid, Mink, Mouse, Sheep, Rabbit, Rat
Published species  Rabbit, Rat, Human, Mouse, Not Applicable

Tested Applications

ELISA (ELISA)  Assay-dependent
Flow Cytometry (Flow)  Assay-dependent
Immunohistochemistry (Frozen) (IHC (F))  Assay-dependent
Immunohistochemistry (Paraffin) (IHC (P))  Assay-dependent
Western Blot (WB)  Assay-dependent

Published Applications

Immunocytochemistry (ICC/IF)  See 1 publications below
Immunohistochemistry (IHC)  See 1 publications below
Neutralization (Neu)  See 2 publications below

Product specific information

TB21 has been used successfully on FFPE tissues without pretreatment. A suggested positive control for immunohistochemical applications is human breast carcinoma. For FACS analysis, use 10 µL of the suggested working dilution to label 1x10^6 cells in 100 µL. The recommended shelf-life for this product is 6 months. Mouse anti Human TGF beta antibody, clone TB21 recognizes both human platelet-derived and recombinant TGF-beta1 in enzyme-linked immunosorbsent assay (ELISA).

Background/Target Information

TGF beta-1 (TGFB1, Transforming Growth Factor Beta 1) is a polypeptide member of the transforming growth factor beta superfamily of cytokines, found almost ubiquitously in tissues. Transforming growth factor (TGF)-b is stored in the extracellular matrix as a latent complex with its pro-domain. Activation of TGF beta-1 requires the binding of aV integrin to an RGD sequence in the prodomain and exertion of force on this domain, which is held in the extracellular matrix by latent TGF-b binding proteins. Latent forms are complexes of TGF beta-1, an amino-terminal portion of the TGF-beta precursor, designated TGF-LAP (TGF-latency associated peptide), and a specific binding protein, known as LTBP. TGF beta-1 helps regulates proliferation, differentiation, adhesion, migration in many cell types. Many cells have TGF beta receptors, and the protein positively and negatively regulates many other growth factors. TGF beta-1 is cleaved into a latency-associated peptide and a mature TGF beta-1 peptide, and is found in either a latent form composed of a TGFB1 homodimer, a LAP homodimer, and a latent TGFB1-binding protein, or in an active form composed of a TGF beta-1 homodimer. The mature peptide may also form heterodimers with other TGF beta family members. The gene for TGF beta-1 is frequently upregulated in tumor cells, and mutations in this gene result in Camurati-Engelmann disease and cystic fibrosis.

Product Images For TGF beta-1 Monoclonal Antibody (TB21)

TGF beta-1 Antibody (MA5-16949) in IHC (P)
Immunohistochemical staining of human brain showing labelling of neurons using a TGF BETA monoclonal antibody (Product # MA5-16949)
### PubMed References For TGF beta-1 Monoclonal Antibody (TB21)

#### 1 Immunocytochemistry References

<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human / Not Cited</td>
<td>MA5-16949 was used in Immunocytochemistry to examine the potential anticancer effects of ozone applied after chemotherapeutic treatment with different concentrations of doxorubicin in Luminal-A subtype of human breast cancer cell line (MCF-7) and compare the results with effects on L929 fibroblast cell line.</td>
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#### 1 Immunohistochemistry References

<table>
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<tbody>
<tr>
<td>Rat / Not Cited</td>
<td>MA5-16949 was used in Immunohistochemistry to investigate the process of homeostatic restoration in the tracheal mucosa after thyroid surgery.</td>
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<tr>
<td>In vivo (Athens, Greece) (Jan 2022; 36: 161) &quot;Restoration of Homeostasis in the Tracheal Mucosa After Thyroid Surgery in a Rat Model.&quot; Author(s): Kim BH, Kim HB, Park JH, Cho CG, Park SW, Lim YS PubMed Article URL:<a href="http://dx.doi.org/10.21873/invivo.12687">http://dx.doi.org/10.21873/invivo.12687</a></td>
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#### 2 Neutralization References

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<tbody>
<tr>
<td>Not Applicable / Not Cited</td>
<td>MA5-16949 was used in blocking or activating experiment to show that TGF-beta1 is involved in the suppressive activity of Leishmania guyanensis-stimulated CD4+ CD25+ T cells from healthy controls</td>
</tr>
<tr>
<td>Not Applicable / Not Cited</td>
<td>MA5-16949 was used in blocking or activating experiment to measure TGF-beta, IL-10, and IFN-gamma production by peripheral blood mononuclear cells of unexposed naive subjects and LCL patients after stimulation with live Leishmania guyanensis</td>
</tr>
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