**DESCRIPTION**

**Specificity**
Detects bovine, chicken, mouse, and human TGF-β in ELISAs and Western blots. It recognizes human TGF-β1, TGF-β2, and TGF-β3.

**Source**
Monoclonal Mouse IgG, Clone # 1D11

**Purification**
Protein A or G purified from hybridoma culture supernatant

**Immunogen**
Bovine bone-derived TGF-β1 and TGF-β2

**Endotoxin Level**
<0.10 EU per 1 µg of the antibody by the LAL method.

**Formulation**
Lyophilized from a 0.2 µg/mL filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

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**APPLICATIONS**

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

<table>
<thead>
<tr>
<th>Recommended Concentration</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Blot</td>
<td>1 µg/mL Recombinant Human TGF-β1 (Catalog # 240-B) under non-reducing conditions only</td>
</tr>
<tr>
<td>Immunocytochemistry</td>
<td>8-25 µg/mL See Below</td>
</tr>
<tr>
<td>Immunohistochemistry</td>
<td>8-25 µg/mL See Below</td>
</tr>
</tbody>
</table>

**Human TGF-β1 Sandwich Immunoassay**

<table>
<thead>
<tr>
<th>ELISA Capture</th>
<th>Reagent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-8 µg/mL TGF-β1, 2, 3 Antibody (Catalog # MAB1835)</td>
<td></td>
</tr>
<tr>
<td>ELISA Detection</td>
<td>0.1-0.4 µg/mL TGF-β1 Biotinylated Antibody (Catalog # BAF240)</td>
</tr>
<tr>
<td>Standard</td>
<td>Recombinant Human TGF-β1 (Catalog # 240-B)</td>
</tr>
</tbody>
</table>

**Neutralization**

Neutralization measured by its ability to neutralize TGF-β1 inhibition of IL-4-dependent proliferation in the HT-2 mouse T cell line. Tsang, M. et al. (1990) Lymphokine Res. 9:607. The Neutralization Dose (ND50) is typically 0.25-1.25 µg/mL in the presence of 1 ng/mL Recombinant Human TGF-β1 and 7.5 ng/mL Recombinant Mouse IL-4.

**Binding Inhibition**


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**DATA**

**Immunocytochemistry**

TGF-β in PC-3 Human Cell Line. TGF-β1, 2, 3 was detected in immersion fixed PC-3 human prostate cancer cell line using 10 µg/mL Mouse Anti-TGF-β1, 2, 3 Monoclonal Antibody (Catalog # MAB1835) for 3 hours at room temperature. Cells were stained with the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

**Immunohistochemistry**

TGF-β in Human Skin. TGF-β1, 2, 3 was detected in immersion fixed paraffin-embedded human skin using 25 µg/mL Mouse Anti-TGF-β1, 2, 3 Monoclonal Antibody (Catalog # MAB1835) overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell and Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with Haematoxylin (blue). View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

**Neutralization**

TGF-β1 Inhibition of IL-4-dependent Cell Proliferation and Neutralization by TGF-β1, 2, 3 Antibody. Recombinant Human TGF-β1 (Catalog # 240-B) inhibits Recombinant Mouse IL-4 (Catalog # 404-M2) induced proliferation in the HT-2 mouse T cell line in a dose-dependent manner (orange line). Inhibition of Recombinant Mouse IL-4 (7.5 ng/mL) activity elicited by Recombinant Human TGF-β1 (1 ng/mL) is neutralized (green line) by increasing concentrations of Mouse Anti-TGF-β1, 2, 3 Monoclonal Antibody (Catalog # MAB1835). The ND50 is typically 0.25-1.25 µg/mL.
PREPARATION AND STORAGE

**Reconstitution**
Reconstitute at 0.5 mg/mL in sterile PBS.

**Shipping**
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
*Small pack size (SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C.

**Stability & Storage**
- Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

TGF-β1, -2, and -3 are a closely related group of proteins (70-80% sequence homology) that are produced by many cell types and function as growth and differentiation factors. The active forms of TGF-β1, -2, and -3 are disulfide-linked homodimers.

**References:**