Technical Data Sheet

Purified Mouse Anti-Cathepsin D

Product Information

Material Number: 610800
Size: 50 µg
Concentration: 250 µg/ml
Clone: 49/Cathepsin D
Immunogen: Human Cathepsin D
Isotype: Mouse IgG2a
Reactivity: QC Testing: Human
Target MW: 43/28 kDa
Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Cathepsin D, an enzyme that degrades proteins, was originally cloned during the search for estrogen-responsive genes in MCF-7 cells. Cathepsin D is synthesized as the 43kDa preprocathepsin D that is cleaved to form a 46kDa glycosylated procathepsin D. Procathepsin is then processed into 44kDa active Cathepsin D. The active and mature form undergoes further cleavage that yields 28kDa and 15kDa (heavy and light chains, respectively) fragments in SDS-PAGE. The heavy and light chains of Cathepsin D are released into the extracellular medium. The maturation process of Cathepsin D occurs through the transit from the endoplasmic reticulum, Golgi apparatus, to the lysosomes. Estrogen stimulates cell proliferation in a number of tumor cell lines and anti-estrogen therapy is often used in the treatment of breast cancer patients. Therefore, Cathepsin D, which is estrogen-inducible, may have a role during the pathogenesis of breast tumors. Additionally, several other roles have been proposed for this enzyme, such as tissue remodeling, tumor invasion, and embryo implantation.


Preparation and Storage

Store undiluted at -20°C.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

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<tr>
<th>Application</th>
<th>Not Recommended</th>
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<tr>
<td>Immunofluorescence</td>
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<tr>
<td>Immunohistochemistry</td>
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<td>Immunoprecipitation</td>
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Recommended Assay Procedure:
Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml.

**Suggested Companion Products**

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<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
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<tr>
<td>611555</td>
<td>HepG2 Cell Lysate</td>
<td>500 µg</td>
<td>(none)</td>
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<tr>
<td>554002</td>
<td>HRP Goat Anti-Mouse Ig</td>
<td>1 mL</td>
<td>(none)</td>
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**Product Notices**

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

**References**


