

DESCRIPTION

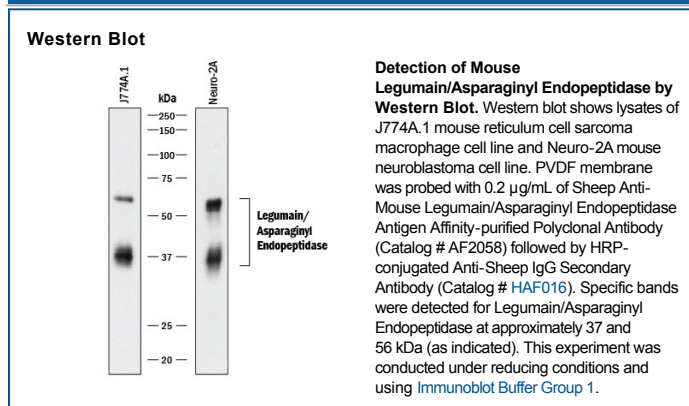
| | |
|---------------------------|---|
| Species Reactivity | Mouse |
| Specificity | Detects mouse Legumain in direct ELISAs and Western blots. In direct ELISAs, approximately 50% cross-reactivity with recombinant human Legumain is observed. |
| Source | Polyclonal Sheep IgG |
| Purification | Antigen Affinity-purified |
| Immunogen | Mouse myeloma cell line NS0-derived recombinant mouse Legumain Val18-Tyr435 Accession # O89017 |
| Formulation | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS. |

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.

| | Recommended Concentration | Sample |
|---------------------|---------------------------|-----------|
| Western Blot | 0.2 µg/mL | See Below |

DATA



PREPARATION AND STORAGE

| | |
|--------------------------------|---|
| Reconstitution | Reconstitute at 0.2 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 | <p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 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

Legumain is a lysosomal cysteine protease found in all mouse tissues examined, but was particularly abundant in kidney and placenta (1). Legumain plays a pivotal role in the endosomal/lysosomal degradation system because the Legumain deficiency causes the accumulation of pro cathepsins B, H and L, another group of lysosomal cysteine proteases (2). Over-expression of Legumain in tumors is significant for invasion/metastasis (3). Also known as asparaginyl endopeptidase, it specifically cleaves peptide bonds with Asn at the P1 position. Nevertheless, it also cleaves peptide bonds with Asp at the P1 position. Auto-activation of pro Legumain involves both types of cleavage, which results in the removal of the pro peptides in both C- and N-termini (4). In addition, Legumain activates pro MMP-2 and processes bacterial antigens for MHC class II presentation and pro thymosin α to thymosin α₁ and thymosin α₁₁, two acidic peptides with immunoregulatory properties (5-7).

References:

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3. Liu, C. *et al.* (2003) *Cancer Res.* **63**: 2957.
4. Li D.N. *et al.* (2003) *J. Biol. Chem.* **278**:38980.
5. Chen, J.M. *et al.* (2001) *Biol. Chem.* **382**:777.
6. Schwarz, G. *et al.* (2002) *Biol. Chem.* **383**:1813.
7. Sardeses, C.S. *et al.* (2003) *J. Biol. Chem.* **278**:13286.