Recombinant Human Mesothelin N-Terminal (aa 35-289) His-tag

Catalog Number: 10093-MS

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived human Mesothelin protein Arg35-Leu289, with a C-terminal 6-His tag Accession # Q13421
N-terminal Sequence Analysis	Arg35
Structure / Form	Monomer
Predicted Molecular Mass	28 kDa

SPECIFICATIONS

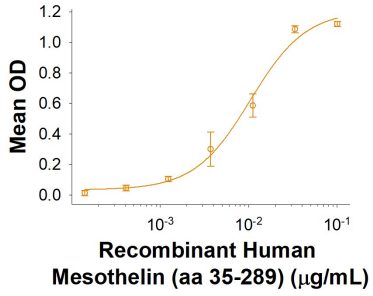
SDS-PAGE	27-39 kDa, reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Human Osteopontin (Catalog # 1433-OP/CF) is immobilized at 4 µg/mL (100 µL/well), the concentration of Recombinant Human Mesothelin N-Terminal (aa 35-289) His-tag (Catalog # 10093-MS) that produces 50% of the optimal binding response is 3-18 ng/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 500 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
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. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

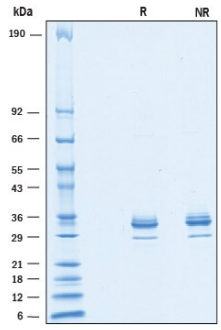
DATA

Binding Activity



When Recombinant Human Osteopontin (OPN) Protein (Catalog # Catalog # 1433-OP/CF) is immobilized at 4 µg/mL (100 µL/well), the concentration of Recombinant Human Mesothelin (aa 35-289) His-tag Protein (Catalog # 10093-MS) that produces 50% of the optimal binding response is 0.003-0.018 µg/mL.

SDS-PAGE



2 µg/lane of Recombinant Human Mesothelin N-Terminal (aa 35-289) His-tag (Catalog# 10093-MS) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 27-39 kDa.

BACKGROUND

Megakaryocyte-Potentiating Factor (MPF), is derived from a 70 kDa Mesothelin precursor (1-3). The 70 kDa precursor is expressed on the cell surface where it is cleaved at a dibasic furin cleavage site between aa 288-293. The cleavage releases soluble N-terminal MPF (aa 37-286) and C-terminal Mesothelin (aa 296-606) remains attached to the cell surface via a GPI linkage. (3, 4). MPF is a cytokine that potentiates IL-3 induced megakaryocyte colony formation (2, 5). This recombinant human MPF shares 56% sequence identity with mouse and rat MPF. Apart from its role as a megakaryocyte potentiating cytokine, MPF may have the potential to serve as a biomarker for detection and monitoring of malignant mesothelioma and related cancers (6).

References:

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6. Raiko, I. *et al.* (2017) Biochem. Biophy. Res. Com. **486**:526.

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