Recombinant Human Mesothelin C-Terminal (aa 296-580) His-tag Alexa Fluor® 647

Catalog Number: AFR3265

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived human Mesothelin protein Glu296-Gly580, with a C-terminal 6-His tag Accession # AAH09272.1
N-terminal Sequence Analysis	Glu296
Structure / Form	Labeled with Alexa Fluor® 647 via amine. Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Predicted Molecular Mass	33 kDa

SPECIFICATIONS

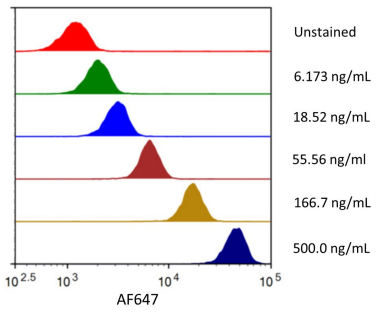
SDS-PAGE	37-45 kDa, reducing conditions.
Activity	Measured by flow cytometry for its ability to bind anti-human Mesothelin Monoclonal Antibody conjugated beads.The concentration of Recombinant Human Mesothelin C-Terminal (aa 296-580) His-tag Alexa Fluor® 647 (Catalog # AFR3265) that produces 50% of the binding response is 1.00-20.0 ng/mL.
Endotoxin Level	<1.0 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	Supplied as a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Shipping	The product is shipped with dry ice or equivalent. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 6 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after opening. • 3 months, -20 to -70 °C under sterile conditions after opening.

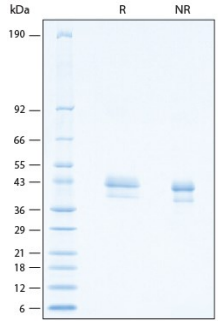
DATA

Flow Cytometry



Flow cytometry analysis for Recombinant Human Mesothelin C-Terminal (aa 296-580) His-tag Alexa Fluor® 647 staining on anti-human Mesothelin Monoclonal Antibody conjugated beads. Streptavidin coated beads conjugated to biotinylated anti-human Mesothelin Monoclonal Antibody were stained with the indicated concentrations of Recombinant Human Mesothelin C-Terminal (aa 296-580) His-tag Alexa Fluor® 647 (Catalog # AFR3265).

SDS-PAGE



Recombinant Human Mesothelin C-Terminal (aa 296-580) His-tag Alexa Fluor® 647 Protein SDS-PAGE. 2 µg/lane of Recombinant Human Mesothelin C-Terminal (aa 296-580) His-tag Alexa Fluor® 647 Protein (Catalog # AFR3265) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 37-45 kDa.

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BACKGROUND

Mesothelin, also known as CAK1 and ERC, is derived from a 70 kDa precursor that also includes Megakaryocyte Potentiating Factor (MPF) (1-3). The 70 kDa precursor is expressed on the cell surface where it is cleaved at a dibasic proteolytic site to release the 32 kDa glycosylated MPF (3, 4). MPF is a cytokine that potentiates IL-3 induced megakaryocyte colony formation (2, 5). The term Mesothelin refers to the 40 kDa glycosylated protein which remains attached to the cell surface *via* a GPI linkage. Alternate splicing generates additional Mesothelin isoforms that have either an eight amino acid insertion following Ser408 or a substituted C-terminal region with no GPI anchor (6). This recombinant human Mesothelin lacks the 8 aa insertion, and within aa 296-580 it shares 59% sequence identity with mouse and rat Mesothelin. Mesothelin is normally expressed on mesothelial cells in the pleura, pericardium, and peritoneum as well as in the developing and postnatal pancreas (1, 7). It is up-regulated in mesotheliomas and a range of carcinomas and adenomas (8 - 11). Mesothelin promotes tumor cell proliferation, migration, anchorage-independent growth, and tumor progression (10, 12). It is coexpressed with the tumor antigen CA125/MUC16 on advanced ovarian adenocarcinomas and interacts with this molecule to support cell adhesion (13). A soluble form of Mesothelin is released from tumor cells into the serum or tissue effusions (11, 14, 15).

References:

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