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## Product Catalog No. 230-00043

### Recombinant Human Mesothelin

#### Synonyms

Mesothelin; CAK1 antigen; Pre-pro-megakaryocyte-potentiating factor; MPF.

#### Description

**Mesothelin (MSLN)** may play an important role in cellular adhesion. It presents on normal mesothelial cells lining the pleura, peritoneum and pericardium. Since mesothelin is overexpressed in some cancers such as mesothelioma and ovarian and pancreatic adenocarcinoma, it could be a potential tumor biomarker. Mesothelin is immunogenic, and it also may be the potential antigenic target of a therapeutic cancer vaccine.

#### Source

- Recombinant protein, purified from *Escherichia coli*.
- Protein Accession No. AAH09272.

#### Preparation

The gene encoding the truncated human mesothelin protein (Pro291- Asp590) was cloned and expressed in *E. coli*. The recombinant mesothelin protein was purified by proprietary chromatographic techniques.

#### Predicted Molecular Mass

~ 33 kDa.

#### Formulation

Recombinant mesothelin is lyophilized from a 0.2  $\mu$ m filtered 0.1 M NaHCO<sub>3</sub>, 0.1 M NaCl (pH 8) solution with the protein concentration of 0.2 mg/mL.

#### Purity

>95%, determined by SDS-PAGE and stained with Commassie blue. (See image below).



#### Stability & Storage

- Lyophilized product is stable at room temperature for 3 weeks, it is recommended to be stored desiccated below -20°C in a manual defrost freezer.
- **Reconstitution:** briefly spin the vial prior to opening to bring the contents to the bottom. It is recommended to reconstitute the lyophilized product with sterile PBS.
- Upon reconstituted, the protein should be stored at 4°C for one week. For long term storage, it is recommended to add a carrier protein (0.1% HSA or BSA) and store at -20 or -80°C. **Please avoid repeated freeze-thaw cycles.**

#### References

- Scholler N, Fu N, Yang Y, et al. (1999) Soluble member(s) of the mesothelin/megakaryocyte potentiating factor family are detectable in sera from patients with ovarian carcinoma. *Proc. Natl. Acad. Sci. U.S.A.* 96:11531-11536.
- Rump A, Morikawa Y, Tanaka M, Minami S. et al. (2004) Binding of ovarian cancer antigen CA125/MUC16 to mesothelin mediates cell adhesion. *J. Biol. Chem.* 279:9190-9198.
- Chang K, Pastan I. (1996) Molecular cloning of mesothelin, a differentiation antigen present on mesothelium, mesotheliomas, and ovarian cancers. *Proc. Natl. Acad. Sci. U.S.A.* 93 (1): 136-40.
- Chang K, Pai LH, Batra JK, et al. (1992) Characterization of the Antigen (CAK1) Recognized by Monoclonal Antibody K1 Present on Ovarian Cancers and Normal Mesothelium. *Cancer Res* 52 (1): 181-6.
- Hassan R, Bera T, Pastan I. (2004) Mesothelin: a new target for immunotherapy. *Clin. Cancer Res.* 10 (12 Pt 1): 3937-42.

**The products are furnished for LABORATORY RESEARCH USE ONLY.  
Not for diagnostic or therapeutic use.**