

Animal-Free TNF-alpha/TNFSF2 Protein, Pig (His)

| | |
|--------------------------|--|
| Cat. No.: | HY-P700252AF |
| Synonyms: | APC1 protein; Cachectin; DIF; TNF; TNFalpha; TNFATNF; TNFSF1A; TNFSF2; TNFA; TNFα; DIF; TNFSF2 |
| Species: | Pig |
| Source: | E. coli |
| Accession: | P23563 (L77-L232) |
| Gene ID: | 397086 |
| Molecular Weight: | Approximately 18.1 kDa |

PROPERTIES

| | |
|--------------------------------|--|
| AA Sequence | <pre> M L R S S S Q T S D K P V A H V V A N V K A E G Q L Q W Q S G Y A N A L L A N G V K L K D N Q L V V P T D G L Y L I Y S Q V L F R G Q G C P S T N V F L T H T I S R I A V S Y Q T K V N L L S A I K S P C Q R E T P E G A E A K P W Y E P I Y L G G V F Q L E K D D R L S A E I N L P D Y L D F A E S G Q V Y F G I I A L </pre> |
| Biological Activity | Measure by its ability to induce cytotoxicity in PK15 cells in the presence of the actinomycin D. The ED ₅₀ for this effect is < 15 pg/mL. |
| Appearance | Lyophilized powder |
| Formulation | Lyophilized from a solution containing 1X PBS, pH7.4. |
| Endotoxin Level | <0.1 EU per 1 µg of the protein by the LAL method. |
| Reconstitution | It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. |
| Storage & Stability | Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage. |
| Shipping | Room temperature in continental US; may vary elsewhere. |

DESCRIPTION

| | |
|-------------------|--|
| Background | TNF-alpha/TNFSF2 protein, a cytokine, binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFR2, predominantly secreted by macrophages and exhibiting diverse biological functions. It possesses the capability to induce cell death in specific tumor cell lines, serving as a potent pyrogen that can cause fever through direct action or by stimulating interleukin-1 secretion, and is implicated in the induction of cachexia. Under certain conditions, TNF-alpha/TNFSF2 can play a role in both stimulating cell proliferation and inducing cell differentiation. It also contributes to insulin resistance in adipocytes by inhibiting insulin-induced IRS1 tyrosine phosphorylation and glucose uptake, with additional effects on GKAP42 protein |
|-------------------|--|

degradation. Furthermore, TNF-alpha/TNFSF2 participates in angiogenesis by synergistically inducing VEGF production with IL1B and IL6, and promotes osteoclastogenesis, thereby mediating bone resorption. The intracellular domain (ICD) form of TNF-alpha induces IL12 production in dendritic cells, further highlighting its multifaceted impact on diverse cellular processes.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA