

Datasheet for ABIN2666865

Osteoprotegerin Protein (AA 22-401, C-Term)[Go to Product page](#)**1** Image

Overview

Quantity:	10 µg
Target:	Osteoprotegerin (TNFRSF11B)
Protein Characteristics:	AA 22-401, C-Term
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Application:	Cytometry by Time of Flight (CyTOF), Flow Cytometry (FACS)

Product Details

Purity:	> 95 % , as determined by Coomassie stained SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	Less than 0.01 ng per µg cytokine as determined by the LAL method.

Target Details

Target:	Osteoprotegerin (TNFRSF11B)
Alternative Name:	TNFRSF11B (TNFRSF11B Products)
Target Type:	Chemical
Background:	TNFRSF11B is a member of the TNFR family, which lacks the transmembrane domain and acts as a secreted decoy receptor with no direct signaling capacity. It plays a key role in the

Target Details

physiological regulation of osteoclastic bone resorption, postnatal bone formation, and pathological calcification of arteries. TNFRSF11B binds to its natural ligand, RANKL (OPGL), which prevents the interaction of RANKL with its receptor, present on osteoclasts, therefore inhibiting osteoclast differentiation, activation, and survival. Overexpression of TNFRSF11B in transgenic mice leads to deep osteoporosis secondary to an almost total lack of osteoclasts. In addition, TNFRSF11B-deficient mice develop early onset osteoporosis and calcification of the aorta and renal arteries, sites which have endogenous TNFRSF11B expression in normal animals. EBF family member, EBF2 activates TNFRSF11B gene transcription in a synergistic manner with Wnt/ β -catenin signaling transcription factor LEF1. In addition to RANKL, TNFRSF11B binds and neutralizes the pro-apoptotic actions of TNF-related apoptosis-inducing ligand (TRAIL) expressed by vascular smooth muscle cells (VSMCs) and T cells. Lastly, TNFRSF11B is involved in B cell development and function. High levels of TNFRSF11B have been detected in serum of patients with cardiovascular diseases, diabetes, and chronic renal failure.

Molecular Weight:	The 620 amino acid recombinant protein has a predicted molecular mass of approximately 70.6 kDa. The DTT-reduced and non-reduced protein migrate at approximately 100 kDa and 200 kDa, respectively, by SDS-PAGE. The predicted N-terminal amino acid is Glu.
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Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Comment:	Biological activity: ED50 = 30 - 90 ng/ml, corresponding to a specific activity of 1 - 3 x 10 ⁴ units/mg, as determined by inhibition of cytotoxic effect of human TRAIL on L929 cells.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Reconstitution:	For maximum results, quick spin vial prior to opening. Stock solutions should be prepared at no less than 10 μ g/mL in sterile buffer (PBS, HPBS, DPBS, and EBSS) containing carrier protein such as 1 % BSA or HSA. After dilution, the cytokine can be stored between 2 °C and 8 °C for one month or from -20 °C to -70 °C for up to 3 months.
Buffer:	0.22 μ m filtered protein solution is in PBS.
Handling Advice:	Avoid repeated freeze/thaw cycles.

Handling

Storage:	-20 °C
Storage Comment:	Unopened vial can be stored between 2°C and 8°C for three months, at -20°C for six months, or at -70°C for one year.

Images

