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Immunotag™ OPG Monoclonal Antibody

Antibody Specification

Catalog No.	ITM0489
Product Description	Immunotag™ OPG Monoclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	OPG
Clonality	Monoclonal
Storage/Stability	-20°C/1 year
Application	WB,IHC-p,ELISA
Recommended Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human
Host Species	Mouse
Immunogen	Purified recombinant fragment of human OPG expressed in E. Coli.
Specificity	OPG Monoclonal Antibody detects endogenous levels of OPG protein.
Purification	Affinity purification
Form	Ascitic fluid containing 0.03% sodium azide.
Gene Name	TNFRSF11B
Accession No.	O00300 O08712
Alternate Names	TNFRSF11B; OCIF; OPG; Tumor necrosis factor receptor superfamily member 11B; Osteoclastogenesis inhibitory factor; Osteoprotegerin

Antibody Specification

Description	TNF receptor superfamily member 11b(TNFRSF11B) Homo sapiens The protein encoded by this gene is a member of the TNF-receptor superfamily. This protein is an osteoblast-secreted decoy receptor that functions as a negative regulator of bone resorption. This protein specifically binds to its ligand, osteoprotegerin ligand, both of which are key extracellular regulators of osteoclast development. Studies of the mouse counterpart also suggest that this protein and its ligand play a role in lymph-node organogenesis and vascular calcification. Alternatively spliced transcript variants of this gene have been reported, but their full length nature has not been determined. [provided by RefSeq, Jul 2008],
Cell Pathway/ Category	Cytokine-cytokine receptor interaction,
Protein Expression	Eye,Kidney,Lung,Lung cancer,Placenta,
Subcellular Localization	extracellular region,proteinaceous extracellular matrix,extracellular space,plasma membrane,integral component of plasma membrane,
Protein Function	disease:Defects in TNFRSF11B are the cause of juvenile Paget disease (JPD) [MIM:239000]; also called hyperostosis corticalis deformans juvenilis or hereditary hyperphosphatasia or chronic congenital idiopathic hyperphosphatasia. JPD is a rare autosomal recessive osteopathy that presents in infancy or early childhood. The disorder is characterized by rapidly remodeling woven bone, osteopenia, debilitating fractures, and deformities due to a markedly accelerated rate of bone remodeling throughout the skeleton. Approximately 40 cases of JPD have been reported worldwide. Unless it is treated with drugs that block osteoclast-mediated skeletal resorption, the disease can be fatal.,function:Acts as decoy receptor for RANKL and thereby neutralizes its function in osteoclastogenesis. Inhibits the activation of osteoclasts and promotes osteoclast apoptosis in vitro. Bone homeostasis seems to depend on the local RANKL/OPG ratio. May also play a role in preventing arterial calcification. May act as decoy receptor for TRAIL and protect against apoptosis. TRAIL binding blocks the inhibition of osteoclastogenesis.,induction:Up-regulated by increasing calcium-concentration in the medium and estrogens. Down-regulated by glucocorticoids.,PTM:N-glycosylated. Contains sialic acid residues.,PTM:The N-terminus is blocked.,similarity:Contains 2 death domains.,similarity:Contains 4 TNFR-Cys repeats.,subunit:Homodimer.,tissue specificity:Highly expressed in adult lung, heart, kidney, liver, spleen, thymus, prostate, ovary, small intestine, thyroid, lymph node, trachea, adrenal gland, testis, and bone marrow. Detected at very low levels in brain, placenta and skeletal muscle. Highly expressed in fetal kidney, liver and lung.,
Usage	For Research Use Only! Not for diagnostic or therapeutic procedures.