Human Osteoprotegerin/TNFRSF11B Alexa Fluor® 594-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF805T
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Osteoprotegerin/TNFRSF11B in direct ELISAs and Western blots. In direct ELISAs, approximately 20% cross-reactivity with recombinant mouse Osteoprotegerin is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*S. frugiperda* insect ovarian cell line *Sf* 21-derived recombinant human Osteoprotegerin/TNFRSF11B Glu22-Leu401 Accession # AAB53709
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Neutralization	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Osteoprotegerin (OPG)/Osteoclastogenesis Inhibitory Factor (OCIF) is a member of the tumor necrosis factor receptor superfamily that lacks any apparent cell-association motifs and exists as a soluble secreted protein. In the TNF superfamily nomenclature, OPG is referred to as TNFRSF11B. OPG was originally isolated by sequence homology as a TNF receptor family protein during a fetal rat intestine cDNA-sequencing project and subsequently shown to be involved in the regulation of bone density. OCIF was initially purified from the conditioned medium of human embryonic fibroblasts based on its ability to inhibit osteoclast development. Comparison of the amino acid (aa) sequences of human OPG and OCIF proteins revealed their identity. Human OPG/OCIF cDNA encodes a 401 aa residue precursor protein with a 21 aa residue putative signal peptide that is removed to generate the mature soluble protein. The amino-terminal half of OPG contains four cysteine-rich repeats characteristic of TNF receptor family members. The 204 residues of the carboxy-terminal OPG/OCIF was found to contain two death domain homologous regions in tandem. Human and mouse OPG share approximately 84% and 94% amino acid sequence identity, respectively, with the rat OPG. Natural OPG/OCIF has been found to exist predominantly as disulfide-linked dimers. Two TNF superfamily ligands, including the membrane proteins OPG ligand/TRANCE (tumor necrosis factor-related activation-induced cytokine)/ODF (osteoclast differentiation factor)/RANKL (receptor activator of NFκB ligand) and TRAIL (TNF-related apoptosis-inducing ligand)/APO-2 ligand, have been shown to be the cellular ligands for OPG/OCIF. Each of these ligands has been shown to interact with additional TNF receptor family members, including RANK (with TRANCE) and TRAIL receptors 1 - 4 (with TRAIL). The roles of these receptor-ligands in osteoclastogenesis, apoptosis and in the immune system remains to be elucidated.

PRODUCT SPECIFIC NOTICES

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