

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human DR6 in ELISAs and Western blots. In sandwich ELISAs, less than 0.2% cross-reactivity with recombinant human (rh) OPG and rhTNF RII is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human DR6 Gln42-Leu350 Accession # O75509
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 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.

ELISA Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
ELISA Detection (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
Western Blot	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

Death Receptor 6 (DR6), also known as TNFRSF21 and CD358, is a type I transmembrane protein in the TNF receptor superfamily (1). Human DR6 consists of a 308 amino acid (aa) extracellular domain (ECD) with four cysteine-rich motifs, a 21 aa transmembrane segment, and a 285 aa palmitoylated cytoplasmic region that contains one death domain (2, 3). Within the ECD, human and mouse DR6 share 82% aa sequence identity. DR6 is expressed as an approximately 110 kDa molecule that carries extensive N-linked and O-linked glycosylation in its extracellular region (3, 4). Among hematopoietic cells, DR6 is expressed on monocytes, resting CD4⁺ T cells, and pro-, pre-, and naïve B cells (5 - 7). DR6 knockout mice exhibit a Th2-biased immune response characterized by exaggerated Th2 and B cell responsiveness in combination with reduced Th1 cell responsiveness and inflammatory leukocyte infiltration (6 - 9). DR6 knockout mice are resistant to induced airway inflammation and experimental autoimmune encephalitis but more susceptible to severe graft versus host disease (9 - 11). DR6 is also expressed on developing neurons where it can bind a shed 35 kDa N-terminal fragment of APP or a fragment of APLP2 (12, 13). This APP fragment is generated following deprivation of neurotrophic factors, and its binding to DR6 triggers DR6-mediated axonal pruning (12). DR6 is constitutively expressed on some prostate cancer cells and can be induced by TNF-α on others (3, 4).

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