

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human ULBP-3 in direct ELISAs and Western blots. In these formats, approximately 5% cross-reactivity with recombinant human (rh) ULBP-2 is observed and less than 1% cross-reactivity with rhULBP-1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human ULBP-3 Gly27-Pro216 Accession # NP_078794
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.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Blockade of Receptor-ligand Interaction	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

ULBP-3 is a member of a family of cell-surface proteins that function as ligands for human NKG2D. ULBP-3 has also been described under the names RaeT1N (retinoic acid early transcript), NKG2DL3, and ALCAN-gamma. The name ULBP-3 derives from the original identification of three proteins, ULBP-1, -2, and -3, as ligands for the human cytomegalovirus glycoprotein UL16; they were designated UL16 binding proteins (ULBP). The gene for ULBP-3 resides in a cluster of ten related genes, six of which encode potentially functional glycoproteins. Amino acid sequence identity within this family ranges from 30-60%. These proteins are distantly related to MHC class I proteins, but they possess only the $\alpha 1$ and $\alpha 2$ Ig-like domains, and they have no capacity to bind peptide or interact with $\beta 2$ -microglobulin. Some family members, including ULBP-3, are anchored to the membrane via a GPI-linkage, whereas others have transmembrane domains. ULBP-3 and several other family members are known to bind to human NKG2D, an activating receptor expressed on NK cells, NKT cells, $\gamma \delta$ T cells, and $CD8^+ \alpha \beta$ T cells. Engagement of NKG2D results in the activation of cytolytic activity and/or cytokine production by these effector cells. The ULBPs are expressed on some tumor cells and have been implicated in tumor surveillance (1-7).

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