

DESCRIPTION

Species Reactivity	Rat
Specificity	Detects rat Fas Ligand/TNFSF6 in direct ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant mouse (rm) 4-1BB Ligand, recombinant human (rh) APRIL, rmBAFF, rhEDA-A2, rmEDA, rhFas Ligand, rmFas Ligand, rhGITR Ligand, rmLIGHT, rhLymphotoxin α1/β2, rhLymphotoxin α2/β1, rmOX40Ligand, rhTL1, recombinant cotton rat TNF-α, rmTNF-α, rrTNF-α, rmTrail, rhTrance, and rmTWEAK is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 252029
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant rat Fas Ligand/TNFSF6 Leu104-Leu278 Accession # P36940
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

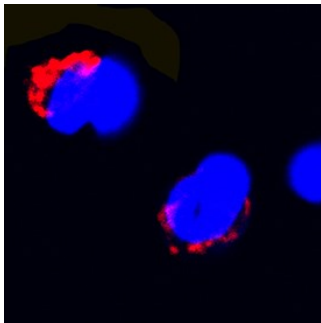
APPLICATIONS

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.

	Recommended Concentration	Sample
Western Blot	1 μg/mL	Recombinant Rat Fas Ligand/TNFSF6 (Catalog # 1614-FL)
Immunocytochemistry	8-25 μg/mL	See Below

DATA

Immunocytochemistry



Fas Ligand/TNFSF6 in Rat Splenocytes.
Fas Ligand/TNFSF6 was detected in immersion fixed rat splenocytes using Mouse Anti-Rat Fas Ligand/TNFSF6 Monoclonal Antibody (Catalog # MAB1858) at 15 μg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Fas Ligand (FasL), also known as CD178, CD95L, or TNFSF6, is a 40 kDa type II transmembrane member of the TNF superfamily of proteins. Its ability to induce apoptosis in target cells plays an important role in the development, homeostasis, and function of the immune system (1). Mature rat Fas Ligand consists of a 179 amino acid (aa) extracellular domain (ECD), a 22 aa transmembrane segment, and a 79 aa cytoplasmic domain. Within the ECD, rat Fas Ligand shares 78% and 93% aa sequence identity with human and mouse Fas Ligand, respectively. Fas Ligand is expressed as a nondisulfide-linked homotrimer on the surface of activated CD4⁺ Th1 cells, CD8⁺ cytotoxic T cells, and NK cells (1). Fas Ligand binding to Fas/CD95 on an adjacent cell triggers apoptosis in the Fas-expressing cell (2, 4). Fas Ligand also binds DcR3 which is a soluble decoy receptor that interferes with Fas Ligand-induced apoptosis (5). Fas Ligand can be released from the cell surface by metalloproteinases as a 26 kDa soluble molecule which remains trimeric (6, 7). Shed Fas Ligand retains the ability to bind Fas, although its ability to trigger apoptosis is dramatically reduced (6, 7). In the absence of TGF- β , however, Fas Ligand/Fas interactions instead promote neutrophil-mediated inflammatory responses (3, 8). Fas Ligand itself transmits reverse signals that costimulate the proliferation of freshly antigen-stimulated T cells (9). Fas Ligand-induced apoptosis plays a central role in the development of immune tolerance and the maintenance of immune privileged sites (10). This function is exploited by tumor cells which evade immune surveillance by upregulating Fas Ligand to kill tumor infiltrating lymphocytes (8, 11). In gld mice, a Fas Ligand point mutation is the cause of severe lymphoproliferation and systemic autoimmunity (12, 13).

References:

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