

DESCRIPTION

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| Species Reactivity | Feline |
| Specificity | Detects feline Fas/TNFRSF6/CD95 in direct ELISAs and Western blots. In direct ELISAs and Western blots no cross-reactivity with recombinant human Fas, recombinant mouse Fas, or recombinant rat Fas are observed |
| Source | Monoclonal Mouse IgG ₁ Clone # 431014 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | Mouse myeloma cell line NS0-derived recombinant feline Fas/TNFRSF6/CD95 Ala25-Lys172 Accession # NP_001009314 |
| Conjugate | Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm |
| Formulation | Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *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.

| | Recommended Concentration | Sample |
|-----------------------|----------------------------------|---|
| Flow Cytometry | 0.25-1 µg/10 ⁶ cells | Feline peripheral blood mononuclear cells treated with PMA and Ca ²⁺ ionomycin |

PREPARATION AND STORAGE

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| 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

Feline Fas (fibroblast associated; also named CD95 and APO-1) is a 45 kDa type I transmembrane (TM) glycoprotein that is a member of the TNF receptor superfamily (1-3). The family contains about 30 members, and is characterized by the presence of at least one cysteine-rich domain that contains multiple intrachain disulfide bonds. In general, the superfamily is divided into cytoplasmic death domain (DD) containing, and non-DD containing receptors (3). Feline Fas is synthesized as a 314 amino acid (aa) precursor that contains a 24 aa signal sequence, a 148 aa extracellular region, a 16 aa TM segment, and a 126 aa cytoplasmic tail (4). The extracellular region contains four potential N-linked glycosylation sites plus two distinct cysteine-rich domains of approximately 40 aa each; the cytoplasmic tail shows a 45 aa DD. The extracellular region of feline Fas shares 68%, 65%, 53%, and 58% aa sequence identity to porcine, human, mouse, and rat Fas, respectively. There are five alternate splice forms of feline Fas, which vary from 132 aa to 209 aa in length. All utilize exons 1-3 (aa 1-111) and all are missing the transmembrane segment of the full length form (5). Circulating Fas is reported to be both a dimer and trimer at low ng/mL concentrations. The ligand for Fas is FasL, and Fas ligation activates both the MEK cascade and FADD/caspase-8 pathway (7).

References:

1. Locksley, R.M. *et al.* (2001) *Cell* **104**:487.
2. Gaur, U. and B.B. Aggarwal (2003) *Biochem. Pharmacol.* **66**:1403.
3. Collette, Y. *et al.* (2003) *Trends Immunol.* **24**:387.
4. Mizuno, T. *et al.* (1998) *Vet. Immunol. Immunopathol.* **65**:161.
5. Mizuno, T. *et al.* (2004) *Eur. J. Immunogenet.* **31**:159.
6. Knipping, E. *et al.* (1995) *Blood* **85**:1562.
7. Baker, S.J. and E.P. Reddy (1998) *Oncogene* **17**:3261.

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