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**Antibody to Human FAS (CD95), Blocking/Activating
MOUSE MONOCLONAL**

Catalog Number: AB-447
Quantity: 500 micrograms, 1 milligram
Format: Lyophilized
Host: Mouse
Isotype: IgG1
Clone: NYRhFAS
Immunogen: Recombinant Human FAS

Background:

The Fas receptor (CD95) mediates apoptotic signaling by Fas-ligand expressed on the surface of other cells. The Fas-FasL interaction plays an important role in the immune system and lack of this system leads to autoimmunity, indicating that Fas-mediated apoptosis removes self-reactive lymphocytes. Fas signaling is also involved in immune surveillance to remove transformed cells and virus infected cells. Binding of FAS to oligomerized FasL on another cell activates apoptotic signaling through a cytoplasmic domain termed the death domain that interacts with signaling adaptors including FAF, FADD and DAX to activate the caspase proteolytic cascade. Caspase-8 and caspase-10 are activated, then they cleave and activate downstream caspases and a variety of cell substrates leading to cell death. Caspases cleave nuclear lamins, causing the nucleus to break down and lose its normal structure. Another caspase substrate is DFF which induces cleavage and degradation of the genome. Other caspase substrates are involved in cytoskeletal structure, cell cycle regulation and signaling pathways. Activation of JNK kinase, activation of Jun, and production of ceramide may also play roles in Fas-mediated apoptosis. Activation of fas-mediated apoptosis is opposed by I-FLICE and FAP. Viruses and tumors may escape immune surveillance in part through suppression of fas-mediated apoptosis using similar mechanisms.

Specificity and Preparation:

Mouse Anti-Human FAS (Blocking/Activating) is purified by protein-A column. Protein concentration is 1 mg/ml in PBS (after reconstitution).

Usage and Storage:

Applications include direct ELISA, blocking FAS-mediated apoptosis and activating FAS-mediated killing. Titer by direct ELISA, 1:10,000 dilution will yield 0.5 O.D using alkaline phosphatase conjugated rabbit anti-mouse Ig (Jackson Laboratories). This is a BLOCKING antibody when in soluble form and will block FAS-mediated apoptosis. It will ACTIVATE FAS-mediated killing when immobilized.

Reconstitute with H₂O. Mix gently, wash the sides of the vial and wait 30-60 seconds before use.

In lyophilized form, for long periods, store at 4°C in a dry environment. After reconstitution, if not intended for use within a month, aliquot and store at -20°C. Material is stable two years lyophilized, one month in solution at 4°C. Antibody is shipped lyophilized at ambient temperature.