

#8023 Store at -20°C

Fas (4C3) Mouse mAb



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP, IF-IC, FC-FP	H	Endogenous	40-50	Mouse IgG1	#P25445	355

Product Usage Information

Application

Western Blotting
Immunoprecipitation
Immunofluorescence (Immunocytochemistry)
Flow Cytometry (Fixed/Permeabilized)

Dilution

1:1000
1:50
1:50
1:100

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity / Sensitivity

Fas (4C3) Mouse mAb recognizes endogenous levels of total Fas protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a recombinant protein specific to the carboxy terminus of human Fas protein.

Background

Association of the receptor Fas with its ligand FasL triggers an apoptotic pathway that plays an important role in immune regulation, development, and progression of cancers (1,2). Loss of function mutation in either Fas (lpr mice) or FasL (gld mice) leads to lymphadenopathy and splenomegaly as a result of decreased apoptosis in CD4-CD8- T lymphocytes (3,4). FasL (CD95L, Apo-1L) is a type II transmembrane protein of 280 amino acids (runs at approximately 40 kDa upon glycosylation) that belongs to the TNF family, which also includes TNF-α, TRAIL, and TWEAK. Binding of FasL to its receptor triggers the formation of a death-inducing signaling complex (DISC) involving the recruitment of the adaptor protein FADD and caspase-8 (5). Activation of caspase-8 from this complex initiates a caspase cascade resulting in the activation of caspase-3 and subsequent cleavage of proteins leading to apoptosis. Unlike Fas, which is constitutively expressed by various cell types, FasL is predominantly expressed on activated T lymphocytes, NK cells, and at immune privileged sites (6). FasL is also expressed in several tumor types as a mechanism to evade immune surveillance (7). Similar to other members of the TNF family, FasL can be cleaved by metalloproteinases producing a 26 kDa trimeric soluble form (8,9).

Background References

1. Suda, T. et al. (1993) *Cell* 75, 1169-78.
2. Lee, H.O. and Ferguson, T.A. (2003) *Cytokine Growth Factor Rev* 14, 325-35.
3. Watanabe-Fukunaga, R. et al. (1992) *Nature* 356, 314-7.
4. Hahne, M. et al. (1995) *Int Immunol* 7, 1381-6.
5. Nagata, S. (1997) *Cell* 88, 355-65.
6. Green, D.R. and Ferguson, T.A. (2001) *Nat Rev Mol Cell Biol* 2, 917-24.
7. Walker, P.R. et al. (1997) *J Immunol* 158, 4521-4.
8. Kayagaki, N. et al. (1995) *J Exp Med* 182, 1777-83.
9. Tanaka, M. et al. (1995) *EMBO J* 14, 1129-35.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry)
FC-FP: Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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