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Store at -20C
#3865

IL-1RA (20D8) Mouse mAb

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

Applications: W	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 18	Source/Isotype: Mouse IgG1	UniProt ID: #P18510	Entrez-Gene Id: 3557
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Product Usage Information

Application

Western Blotting

Dilution

1:1000

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

IL-1RA (20D8) Mouse mAb detects endogenous IL-1RA protein. It does not cross-react with other related proteins.

Source / Purification Background

Monoclonal antibody is produced by immunizing animals with recombinant human IL-1RA protein.

The founding members of the interleukin-1 (IL-1) superfamily include pro-inflammatory cytokines IL-1 α and IL-1 β , and a third protein that acts as an IL-1 receptor antagonist (IL-1RA). At least six similar proteins have been recently identified, including a homolog of IL-1RA (IL1F5). The three better-characterized proteins (IL-1a, IL-1b, and IL-1RA) are mainly expressed in macrophages, monocytes, and dendritic cells. IL-1a and IL-1b act as potent inflammatory cytokines that help regulate host defense and immune responses (1). Binding of these pro-inflammatory cytokines to an IL-1 receptor recruits adaptor proteins (such as IRAK) to the receptor. Phosphorylation of these adaptor proteins promotes downstream signaling cascades associated with the immune response (2). Altered expression of both IL-1a and IL-1b is associated with an extensive list of human disorders, including Alzheimer's disease, rheumatoid arthritis, psoriasis, and various forms of cancer (3,4). IL-1RA acts as an anti-inflammatory cytokine, binding the IL-1 receptor to limit the response to inflammation (5). Because it plays a key role in regulating the inflammatory response, recombinant IL-1RA is a therapeutic agent used in the treatment of diseases, such as rheumatoid arthritis. Alternatively, mutation of the corresponding *IL-1RA* gene may be associated with susceptibility to the development of specific cancers (6).

Background References

1. Pelegri, P. (2008) *Drug News Perspect* 21, 424-33.
2. Ringwood, L. and Li, L. (2008) *Cytokine* 42, 1-7.
3. Griffin, W.S. and Mrak, R.E. (2002) *J Leukoc Biol* 72, 233-8.
4. Kamangar, F. et al. (2006) *Cancer Epidemiol Biomarkers Prev* 15, 1920-8.
5. Arend, W.P. (2002) *Cytokine Growth Factor Rev* 13, 323-40.
6. Sehoul, J. et al. (2002) *Anticancer Res* 22, 3421-4.

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

W: Western Blotting

Cross-Reactivity Key

H: Human

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