

#3865 Store at -20°C

IL-1RA (20D8) Mouse mAb



✓ 100 µl
(10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

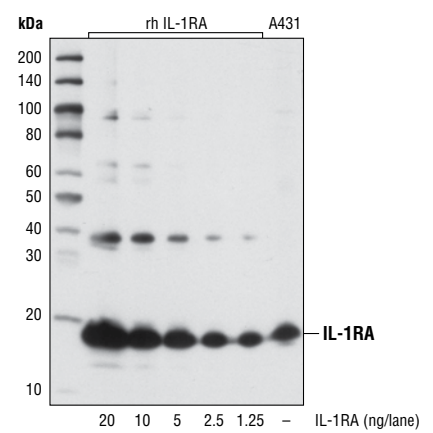
Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W Endogenous	H	18 kDa	Mouse IgG1**

Background: 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-1 α , IL-1 β and IL-1RA) are mainly expressed in macrophages, monocytes, and dendritic cells. IL-1 α and IL-1 β 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 adapter 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-1 α and IL-1 β 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).

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

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

- Background References:**
- (1) Pelegrin, 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. *Cytokine Growth Factor Rev* 13, 323–40.
 - (6) Sehouli, J. et al. *Anticancer Res* 22, 3421–4.



Western blot analysis of variable amounts of recombinant human IL-1RA protein and A431 cell lysate using IL-1RA (20D8) Mouse mAb.

Entrez-Gene ID #3557
Swiss-Prot Acc. #P18510

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.

*Species cross-reactivity is determined by western blot.

**Anti-mouse secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:
Western Blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

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

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Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey 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 All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.