### RD SYSTEMS a biotechne brand

# Human IL-37/IL-1F7 Alexa Fluor® 488-conjugated Antibody

Monoclonal Mouse IgG<sub>2B</sub> Clone # 899826 Catalog Number: IC19751G

100 µg

DESCRIPTION			
Species Reactivity	Human		
Specificity	Detects human IL-37/IL-1F7 in direct ELISAs.		
Source	Monoclonal Mouse IgG <sub>2B</sub> Clone # 899826		
Purification	Protein A or G purified from hybridoma culture supernatant		
Immunogen	<i>E. coli-</i> derived recombinant human IL-37/IL-1F7 Lys53-Val206 Accession # Q9NZH6		
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.		

\*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	
Intracellular Staining by Flow Cytometry	0.25-1 µg/10 <sup>6</sup> cells	See Below	



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## Human IL-37/IL-1F7 Alexa Fluor® 488-conjugated Antibody

Monoclonal Mouse IgG2B Clone # 899826

Catalog Number: IC19751G 100 µg

### BACKGROUND

Human interleukin 1 family member 7 (IL-1F7), also known as FIL-1Z, IL-1H4, and IL-1RP1, belongs to the IL-1 cytokine family, which currently has ten members. With the exception of IL-18 that maps to human chromosome 11, all other IL-1 family members map to the same cluster on human chromosome 2. Five alternatively spliced transcripts that arise through alternate exon usage have been described. These transcripts encode five different IL-1F7 isoforms (IL-1F7a through e also referred to as isofoms 1 through 5) that have distinct expression profiles. Polymorphism in the protein sequence of IL-1F7 isoforms also exists. Like IL-1 $\alpha$ , IL-1 $\beta$  and IL-18, all of the IL-1F7 variants lack a typical signal peptide. The longest IL-1F7 transcript, referred to as IL-1F7b or IL-1F7 isoform 1, encodes a 218 amino acid (aa) residues proprotein containing a 45 aa propeptide, which is removed by caspase-1 to generate the 173 aa mature segment. Mature IL-1F7b and other IL-1F7 variants lack glycosylation sites. The secreted mature IL-1F7Fb was reported to exist as a nondisulfide linked homodimers in solution, IL-1F7 shares approximately 21%, 24%, and 30% aa sequence identity with mature IL-1 $\alpha$  iIL-1 $\beta$  and IL-1 $\alpha$ , respectively. Mouse IL-1F7b band to IL-1F7b also to the IL-1F7s active on mouse cells. IL-1F7b binds to IL-18 R $\alpha$  with low affinity but does not exert any IL-18 agonistic effects. IL-1F7b also binds to the IL-18BP to enhance the antagonistic effects of IL-18BP. It has been proposed that IL-1F7b form a trimeric complex with IL-18BP and IL-18 R $\beta$ . This complex blocks IL-18 active by sequestering the signal transducing subunit and preventing it from participating in IL-18 signaling (1-8).

#### References:

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