

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IL-17C in direct ELISAs.
Source	Monoclonal Rat IgG _{2A} Clone # 311522
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant mouse IL-17C His15-Gln194 Accession # NP_665833
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. See Certificate of Analysis for details. *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 ⁶ cells	Tramp-C1 mouse prostate cancer cell line fixed with paraformaldehyde and permeabilized with saponin

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

The Interleukin 17 (IL-17) family proteins, comprising six members (IL-17, IL-17B through IL-17F), are secreted, structurally related proteins that share a conserved cysteine-knot fold near the C-terminus, but have considerable sequence divergence at the N-terminus (1, 2). With the exception of IL-17B, which exists as a non-covalently linked dimer, all IL-17 family members are disulfide-linked dimers (3). IL-17 family proteins are pro-inflammatory cytokines that induce local cytokine production and are involved in the regulation of immune functions (1, 2). Two receptors (IL-17 R, and IL-17B R), which are activated by IL-17 family members have been identified. In addition, at least three additional orphan type I transmembrane receptors with homology to IL-17 R, including IL-17 RL (IL-17 RC), IL-17 RD, and IL-17 RE, have also been reported (1-4). The functions of IL-17 RC, D, and E are not known.

Mouse IL-17C cDNA encodes a 194 amino acid (aa) residues protein with a putative 14 aa signal peptide (5). Although there are no potential N-linked glycosylation sites, it is reportedly glycosylated (6). IL-17C shares from 15%-30% aa sequence identity with other IL-17 family members. Mouse and human IL-17C share 83% aa sequence identity. IL-17C has a very restricted expression pattern and was detected as a rare expressed sequence tag (EST) in an adult prostate and fetal kidney libraries (2). IL-17C has been shown to stimulate the release of TNF-α and IL-1β from the monocytic cell line THP-1, a property it shares with IL-17B (6, 7). Human IL-17C is active on mouse cells (5). The receptor of IL-17C has not yet been identified. The IL-17C preparations from R&D Systems have been found to bind immobilized recombinant mouse IL-17B R/Fc in a functional ELISA.

References:

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3. Hymowitz, S.G. *et al.* (2001) *EMBO J.* **20**:5332.
4. Haudenschild, D. *et al.* (2002) *J. Biol. Chem.* **277**:4309.
5. Hurst, S.D. *et al.* (2002) *J. Immunology* **169**:443.
6. Li, H. *et al.* (2000) *Proc. Natl. Acad. Sci. USA* **97**:773.
7. Shi, Y. *et al.* (2000) *J. Biol. Chem.* **275**:19167.

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