

DESCRIPTION

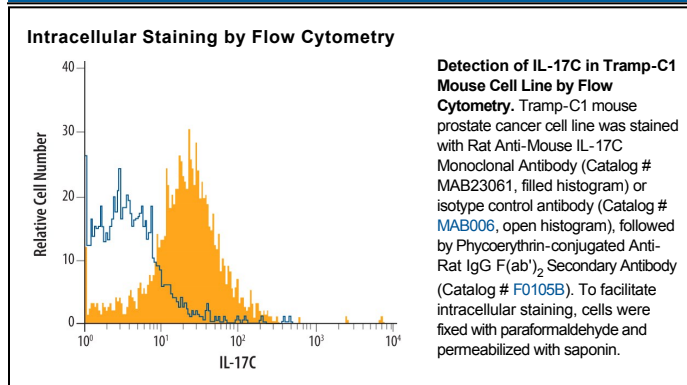
Species Reactivity	Mouse
Specificity	Detects mouse IL-17C in direct ELISAs.
Source	Monoclonal Rat IgG _{2A} Clone # 311522
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant mouse IL-17C His15-Gln194 Accession # NP_665833
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

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	2.5 µg/10 ⁶ cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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-1 β 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:

1. Aggarwal, S. and A.L. Gurney (2002) *J. Leukoc. Biol.* **71**:1.
2. Moseley, T.A. *et al.* (2003) *Cytokine & Growth Factor Rev.* **14**:155.
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.