

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IL-17 RD/SEF in direct ELISAs.
Source	Monoclonal Rat IgG _{2A} Clone # 400210
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse IL-17 RD/SEF Gly28-Arg299 Accession # Q8JZL1
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 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
Flow Cytometry	0.25-1 µg/10 ⁶ cells	HEK293 human cell line transfected with mouse IL-17 RD/SEF

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. 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Interleukin-17 receptor D (IL-17 RD), also known as SEF (similar expression to FGFs), is a type I transmembrane protein that is found in both the cytoplasm and plasma membrane (1-5). The gene for this protein belongs to a synexpression group originally identified in zebrafish and SEF is expressed along with FGF-3, -8, sprouty-2 (SPRY2) and SPRY4 (6, 7). Due to the presence of an alternate start site, there is one transcript that potentially gives rise to two isoforms. The first is a full-length long form and the second an N-terminally truncated form (2, 5). The significance and expression pattern of the short form are uncertain. The membrane-bound long form of mouse IL-17 RD is synthesized as a 738 amino acid (aa) precursor protein with a putative 27 aa signal peptide, a 272 aa extracellular domain, a 20 aa transmembrane segment and a 419 aa cytoplasmic domain (5). The extracellular domain contains one Ig-like domain and a fibronectin type III motif. The cytoplasmic domain shares homology with the intracellular domains of IL-17 receptor family members and shows one TIR (Toll/IL-1 Receptor) domain and a putative TRAF6-binding motif (2). Natural IL-17 RD has been shown to form homomultimeric complexes (3). The full-length IL-17 RD isoform is expressed in most adult tissues and during embryonic development (3, 5). Functionally, IL-17 RD has been shown to be an inhibitor of FGF signaling. The molecule's extracellular domain does not seem to be involved. There is an interaction between the intracellular domains of FGF R1/2 and IL-17 RD that blocks ERK dissociation from MEK, thereby interfering with downstream ERK activation of nuclear Elk-1 (8). IL-17 RD has also been reported to interact with TAK1 and induce JNK activation and apoptosis (9). Ligands that interact with the extracellular domain of IL-17 RD have not been identified.

References:

1. Furthauer, M. *et al.* (2002) *Nat. Cell Biol.* **4**:170.
2. Xiong, S. *et al.* (2003) *J. Biol. Chem.* **278**:50273.
3. Yang, R-B. *et al.* (2003) *J. Biol. Chem.* **278**:33232.
4. Preger, E. *et al.* (2003) *Proc. Natl. Acad. Sci. USA* **101**:1229.
5. Lin, W. *et al.* (2002) *Mech. Dev.* **113**:163.
6. Tsang, M. *et al.* (2002) *Nat. Cell Biol.* **4**:165.
7. Kovalenko, D. *et al.* (2003) *J. Biol. Chem.* **278**:14087.
8. Torii, S. *et al.* (2004) *Dev. Cell* **7**:33.
9. Yang, X. *et al.* (2004) *J. Biol. Chem.* **279**:38099.

Mouse IL-17RD/SEF Alexa Fluor® 594-conjugated Antibody

Monoclonal Rat IgG_{2A} Clone # 400210

Catalog Number: FAB2276T

100 Tests

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.