Mouse IL-17 RE
Alexa Fluor® 488-conjugated Antibody

Monoclonal Rat IgG_1 Clone # 944904

Catalog Number: FAB7997G

100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IL-17 RE in direct ELISAs.
Source	Monoclonal Rat IgG_1 Clone # 944904
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NSO-derived recombinant mouse IL-17 RE Met1-His414 Accession # Q8BH06
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
Flow Cytometry	0.25-1 µg/10^6 cells	CHO Chinese hamster ovary cell line transfected with mouse IL-17 RE

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 E (IL-17 RE) is an approximately 70 kDa (predicted) transmembrane protein in the family of IL-17 receptors. IL-17 RE is required for mediating the pro-inflammatory and homeostatic actions of IL-17C in the skin and mucosa (1, 2). Mature mouse IL-17 RE consists of a 391 amino acid (aa) extracellular domain, a 21 aa transmembrane segment, and a 202 aa cytoplasmic domain with one SEFIR/TIR domain (3). Within aa 115-414, mouse IL-17 RE shares 79% and 90% aa sequence identity with human and rat IL-17 RE, respectively. Alternative splicing of mouse IL-17 RE generates additional isoforms with either 201 aa or 326 aa N-terminal deletions or deletion/substitution of the transmembrane segment (3). IL-17 RE is expressed on keratinocytes, mucosal epithelial cells, Th17 cells, and γ/δ T cells (4, 5). It associates with the widely expressed IL-17 RA to form a heterodimeric receptor for IL-17C (4-6). IL-17C binds to IL-17 RE with high affinity and to IL-17 RA with low affinity (4, 5). IL-17C expression is induced by inflammatory stimulation in colon and airway epithelial cells, keratinocytes, $CD4^+$ T cells, macrophages, and dendritic cells (4, 6, 7-9). It is up-regulated in various chronic inflammatory diseases including psoriasis, cystic fibrosis, and chronic obstructive pulmonary disease (COPD) (7, 8, 10). IL-17 RE is reciprocally down-regulated in psoriatic lesions (10). The interaction of IL-17C with IL-17 RE promotes mucosal immunity through the induction of anti-bacterial peptides and pro-inflammatory cytokines and chemokines (4, 6, 8, 9). IL-17C action supports the integrity of the colon epithelium following infection induced damage (4, 6, 11) but also contributes to psoriatic skin thickening and the progression of arthritis (4, 8, 9). IL-17C is additionally up-regulated in Th17 cell dependent autoimmunity (5). In this setting, it exacerbates disease severity by inducing Th17 cell production of IL-17A, IL-17F, IL-22, CCR6, and CCL20 (5). The up-regulation of IL-17 RE in hepatocellular carcinoma is associated with poor prognosis (12).

References:

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