

DESCRIPTION

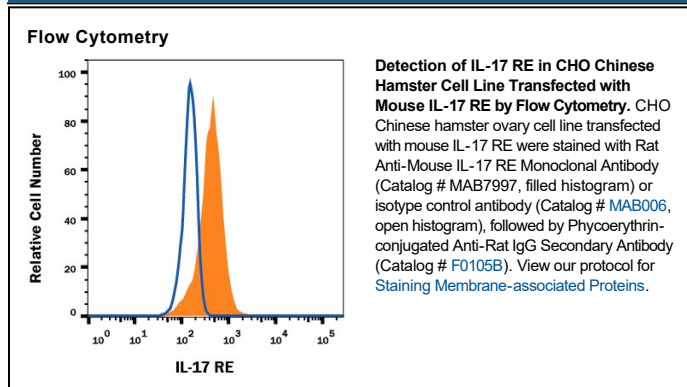
Species Reactivity	Mouse
Specificity	Detects mouse IL-17 RE in direct ELISAs.
Source	Monoclonal Rat IgG ₁ Clone # 944904
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NSO-derived recombinant mouse IL-17 RE Met1-His414 Accession # Q8BH06
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or 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
Flow Cytometry	0.25 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

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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