Rat IL-17/IL-17A Alexa Fluor® Plus 405-conjugated Antibody

Recombinant Monoclonal Mouse IgG_{2B} Clone # 905521R

Catalog Number: FAB8410AFP405

100 µg

DESCRIPTION

Species Reactivity	Rat
Specificity	Detects Rat IL-17/IL-17A in direct and capture ELISAs. In direct Elisa, no cross-reactivity with Rat IL17F was observed.
Source	Recombinant Monoclonal Mouse IgG_{2B} Clone # 905521R
Purification	Protein A or G purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant rat IL-17A + rat IL-17F (Met1-Ser150,I46L) and (Met1-161) Accession # Q61453
Conjugate	Alexa Fluor Plus 405 Excitation Wavelength: 404 nm Emission Wavelength: 455 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.*

ELISA	Optimal dilution of this antibody should be experimentally determined.

DATA

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

Rat IL-17A/F is an approximately 37 kDa, secreted, disulfide-linked glycosylated heterodimeric protein comprised of two members of the IL-17 family of cytokines, IL-17A and IL-17F (1, 2). Members of this family demonstrate a structural motif termed a cysteine knot that also characterizes a large superfamily of growth factors such as TGF-beta (1). Although most cysteine knot superfamily members use three intrachain disulfide bonds to create a knot, IL-17 family molecules generate the same structural form with only two disulfide links (1, 3-5). Mature rat IL-17A and IL-17F share 60% and 59% amino acid sequence identity with human and 61% and 90% with mouse IL-17A and IL-17F, respectively. They also share 50% aa sequence identity with each other (1). IL-17A/F heterodimer and the IL-17A and IL-17F homodimers are produced by IL-23 activated Th17 cells (1, 6-10, 14). The widely expressed receptors IL-17 RA and IL-17 RC form a heterodimer for the binding of IL-17A and IL-17F, as well as the heterodimeric IL-17A/F (6, 11, 12). IL-17A/F is a biologically active protein that induces chemokine production and airway neutrophilia with intermediate potency between IL-17A (most potent) and IL-17F (least potent) (7, 12). It is up-regulated in immune cells during inflammatory arthritis and contributes to disease severity (13).

References:

1. Wright, J.F. *et al.* (2007) J. Biol. Chem. **282**:13447.
2. Chang, S.H. and C. Dong (2007) Cell Res. **17**:435.
3. Kawaguchi, M. *et al.* (2004) J. Allergy Clin. Immunol. **114**:1265.
4. Kolls, J.K. and A. Linden (2004) Immunity **21**:467.
5. Gu, C. *et al.* (2013) Cytokine **64**:477.
6. Cheung, P.F.Y. *et al.* (2008) J. Immunol. **180**:5625.
7. Liang, S.C. *et al.* (2007) J. Immunol. **179**:7791.
8. Ouyang, W. *et al.* (2008) Immunity **28**:454.
9. Steinman, L. (2007) Nat. Med. **13**:139.
10. Hunter, C.A. (2005) Nat. Rev. Immunol. **5**:521.
11. Kuestner, R.E. *et al.* (2007) J. Immunol. **179**:5462.
12. Wright, J.F. *et al.* (2008) J. Immunol. **181**:2799.
13. Sarkar, S. *et al.* (2014) Clin. Exp. Immunol. **177**:652.
14. Spolski, R. *et al.* (2009) Eur. J. Immunol. **3**: 658.

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