

BAFFR/TNFRSF13C Protein, Mouse (HEK293, Fc)

Cat. No.:	HY-P7646
Synonyms:	rMuBAFFR/TNFRSF13C, C-Fc; BAFF R; BAFFR; BR3; CD268; TNFRSF13C
Species:	Mouse
Source:	HEK293
Accession:	Q9D8D0 (S10-A71)
Gene ID:	72049
Molecular Weight:	40-55 kDa

PROPERTIES

AA Sequence	S Q R S R D S S V P T Q C N Q T E C F D P L V R N C V S C E L F H T P D T G H T S S L E P G T A L Q P Q E G S A L R P D V A
Biological Activity	Immobilized Human BAFF-His at 10µg/mL (100 µL/well) can bind recombinant Mouse BAFFR/TNFRSF13C, C-Fc (HEK293-expressed). The ED50 of recombinant Mouse BAFFR/TNFRSF13C, C-Fc (HEK293-expressed) is 0.04ug/mL.
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	BAFF Receptor is expressed on all B cells (except plasma cells), including immature, transitional, mature, memory, and germinal center B cells, as well as on plasma cells ^[2] , while BAFF-R is also expressed on follicular helper T cells (TFH) ^[3] . The amino acid sequence of human BAFF Receptor protein has low homology for mouse and rat BAFF Receptor protein. BAFF Receptor binds to BAFF and recruits TNF receptor-associated factor 3 (TRAF-3) and TRAF-2 to the intracellular domain of BAFF-R molecules. The binding of TRAF3 to the BAFF-R reverses the inhibitory effect of unbound/cytoplasmic TRAF3 on the alternative NF-κB2 signaling pathway. It releases NF-κB-inducing kinase (NIK), which phosphorylates inhibitor of κB kinase 1 (IKK1) leading to activation of non-canonical NF-κB. BAFF-R signaling is critical for peripheral B cell survival and
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differentiation, germinal center formation, plasma cell survival, and IgG and IgE class switching^[2].

BAFF Receptor binds to BAFF mediates B-cell survival, proliferation, and differentiation, and involves in the formation of GCs in secondary follicles in murine models and tertiary lymphoid structures in autoimmune diseases^[3]. BAFF/BAFF-R signaling is crucial for primary B cell survival, differentiation and homeostasis^[4]. A/WySnJ mice expressing a defective BAFF-R have disrupted B cell maturation, similar to that seen in BAFF-deficient mice^[5].

REFERENCES

- [1]. Rodig SJ, et al. BAFF-R, the major B cell-activating factor receptor, is expressed on most mature B cells and B-cell lymphoproliferative disorders. *Hum Pathol.* 2005 Oct;36(10):1113-9.
- [2]. Thompson N, et al. Exploring BAFF: its expression, receptors and contribution to the immunopathogenesis of Sjögren's syndrome. *Rheumatology (Oxford).* 2016 Sep;55(9):1548-55.
- [3]. Carrillo-Ballesteros FJ, et al. B-cell activating factor receptor expression is associated with germinal center B-cell maintenance. *Exp Ther Med.* 2019 Mar;17(3):2053-2060.
- [4]. Zheng N, et al. BAFF promotes proliferation of human mesangial cells through interaction with BAFF-R. *BMC Nephrol.* 2015 May 15;16:72.
- [5]. Ng LG, et al. B cell-activating factor belonging to the TNF family (BAFF)-R is the principal BAFF receptor facilitating BAFF costimulation of circulating T and B cells. *J Immunol.* 2004 Jul 15;173(2):807-17.
- [6]. Warnatz K, et al. B-cell activating factor receptor deficiency is associated with an adult-onset antibody deficiency syndrome in humans. *Proc Natl Acad Sci U S A.* 2009 Aug 18;106(33):13945-50.
- [7]. J S Thompson, et al. BAFF-R, a newly identified TNF receptor that specifically interacts with BAFF. *Science.* 2001 Sep 14;293(5537):2108-11.
- [8]. Scott J Rodig, et al. BAFF-R, the major B cell-activating factor receptor, is expressed on most mature B cells and B-cell lymphoproliferative disorders. *Hum Pathol.* 2005 Oct;36(10):1113-9.
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