

Product datasheet

TC-PTP (C TERM) MOUSE MONOCLONAL ANTIBODY (6F3)

SKU: MM-0019-P

100 µg

OVERVIEW

Clonality:

Monoclonal

Host:

Mouse

Reactivity:

Mouse, Rat

Application:

WB, IP

Target:

TC-PTP (C term)

Target background:

The protein tyrosine phosphatases (PTP) belongs to a large family of enzymes involved in the regulation of cellular signaling and homeostasis, each possessing a 240 amino acid PTP domain. The T-cell protein tyrosine phosphatase (TC-PTP) is predominantly expressed in the hematopoietic lineage. TC-PTP null mice suffer severe defects in the hematopoietic compartment and die at 3-5 weeks of age from severe anemia. TC-PTP ^{-/-} murine embryonic fibroblasts have a slow progression through the G1 phase of the cell cycle and have compromised NF-kappaB activation. JAK 1 and 3 have been identified as physiological substrates of TC-PTP. Recent genetic studies have revealed an association between the PTPN2 (TC-PTP) gene and diseases like type 1 diabetes and Crohn's disease.

Target alias:

T-cell protein tyrosine phosphatase, Protein-tyrosine phosphatase PTP-2, MPTP, Ptpn2, Ptpt

Immunogen:

C-terminal fragment of TC-PTP

Specificity:

The antibody recognizes the C-terminal portion of TC-PTP.

Clone ID:

6F3

Isotype:

IgG1

Preservative:

None

Format:

Lyophilized protein G purified in PBS pH7.4

Recommend starting dilution:

If reconstituted with deionized water in 100 μ L: WB 1:2000. Optimal dilution has to be determined by the user.

Limitations:

Research Use Only

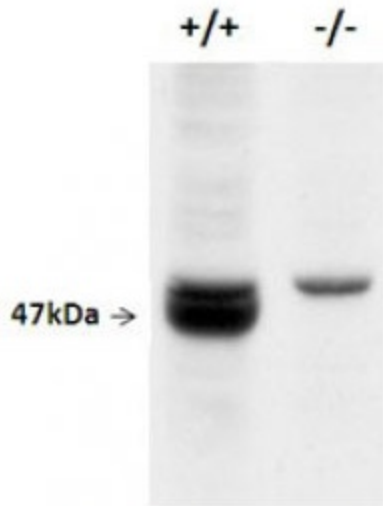
References:

- 1.-Wiede F - PTPN22-deficiency exacerbates T follicular helper cell and B cell responses and promotes the development of autoimmunity.
- 2.-Dodd GT - Leptin and insulin act on POMC neurons to promote the browning of white fat.
- 3.-Yi Z - The adaptor TRAF3 restrains the lineage determination of thymic regulatory T cells by modulating signaling via the receptor for IL-2.
- 4.-Shields BJ - TCPTP regulates SFK and STAT3 signaling and is lost in triple-negative breast cancers.
- 5.-Loh K - T cell protein tyrosine phosphatase (TCPTP) deficiency in muscle does not alter insulin signalling and glucose homeostasis in mice.
- 6.-Bettaieb A - Adipose-specific deletion of Src homology phosphatase 2 does not significantly alter systemic glucose homeostasis.
- 7.-Wiede F - T cell protein tyrosine phosphatase attenuates T cell signaling to maintain tolerance in mice.
- 8.-Young RM - TC-PTP is required for the maintenance of MYC-driven B-cell lymphomas.
- 9.-Simoncic PD - The T cell protein tyrosine phosphatase is a negative regulator of janus family kinases 1 and 3.
- 10.-Ibarra-Sánchez MJ - Murine embryonic fibroblasts lacking TC-PTP display delayed G1 phase through defective NF-kappaB activation.

Storage:

Lyophilized antibodies can be kept at 4°C for up to 3 months and should be kept at -20°C for long-term storage (2 years). To avoid freeze-thaw cycles, reconstituted antibodies should be aliquoted before freezing for long-term (1 year) storage (-80°C) or kept at 4°C for short-term usage (2 months). For maximum recovery of product, centrifuge the original vial prior to removing the cap. Further dilutions can be made with the assay buffer. After the maximum long-term storage period (2 years lyophilized or 1 year reconstituted) antibodies should be tested in your assay with a standard sample to verify if you have noticed any decrease in their efficacy.

Image:



Western blot of TC-PTP expression in mouse Embryonic fibroblasts. TC-PTP wild type (+/+) and knockout (-/-).

