Technical Data Sheet

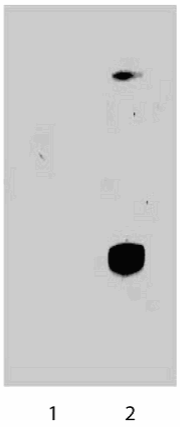
Purified Mouse Anti-Stat4 (pY693)

Product Information

Material Number:	**612738**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	38/p-Stat4
Immunogen:	Phosphorylated Human Stat4 (pY693)
Isotype:	Mouse IgG2b, κ
Reactivity:	QC Testing: Human Tested in Development: Mouse
Target MW:	89 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

The Stat proteins function both as cytoplasmic signal transducers and as activators of transcription. Seven mammalian Stat proteins have been identified: Stat1-4, Stat5a, 5b, and Stat6. Stat4 has been shown to play an important role in development of T helper cells, specifically the Th1 subset. Stat4 is activated by IL-12 and by type 1 interferons. Knockout mice supported the role that Stat4 plays in IL-12 signaling because lymphocytes from Stat 4-/- mice could not differentiate into Th1 cells or produce IFNγ in response to treatment with IL-12. IFNγ plays an important role in host defense. A key component in the activation of Stat4 is the phosphorylation on tyrosine and serine residues in response to IL-12 stimulation. IL-12 stimulation leads to the phosphorylation of Stat4 on tyrosine 693 and serine 721. Transcriptional activity of Stat4 has been shown to be significantly reduced when residues Y693 and S721 are mutated.



K-562 cells were either left untreated (lane 1) or treated (lane 2) with 1.0 mM pervanadate for 20 minutes at 37°C.
The image shows a blot that was probed with Stat4 (pY693).

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20°C.

Application Notes

Application

Western blot	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

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3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Kisseleva T, Bhattacharya S, Braunstein J, Schindler CW. Signaling through the JAK/STAT pathway, recent advances and future challenges. *Gene.* 2002; 285:1-24.(Biology)

Visconti R, Gadina M, Chiariello M, Chen EH, Stancato LF, Gutkind JS, O'Shea J. Importance of the MKK6/p38 pathway for interleukin-12−induced STAT4 serine phosphorylation and transcriptional activity. *Blood.* 2000; 96:1844-1852.(Biology)