

Technical Data Sheet

Purified Mouse Anti-Stat4

Product Information

Material Number:	610926
Alternate Name:	Signal Transducers and Activators of Transcription-4
Size:	50 µg
Concentration:	250 µg/ml
Clone:	8/Stat4
Immunogen:	Human Stat4 aa. 136-258
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Rat 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 as both cytoplasmic signal transducers and activators of transcription. Stat91/84 (the two proteins are the result of alternate splicing-Stat91 has an additional 38 C-terminal amino acids) and Stat113 were the first identified members of this protein family. With the discovery of additional members of the Stat family (Stat 3 & 4), the nomenclature has been revised to reflect the order of their discovery. Stat 91, 84, and 113 have become Stat1 α , Stat1 β , and Stat2, respectively. Stat4 has been reported to be 52% identical to Stat1 and 47% identical to Stat3. Functionally, Stat4 is similar to the other Stat proteins in that it requires tyrosine phosphorylation in order to stimulate its IFN- γ activated site (GAS) binding activity. Expression of Stat4 appears to be limited to thymus, spleen, and testis. Its expression in several myeloid cell lines is differentially regulated during cellular differentiation. Co-transfection studies using JAK1 or JAK2 expression constructs indicate that Stat4 is a substrate for these kinases.



Western blot analysis of Stat4 on a rat testis lysate.
Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the mouse anti-Stat4 antibody.

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
Immunofluorescence	Not Recommended

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Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
611472	Rat Testis Lysate	500 µg	(none)
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.
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

Frank DA, Robertson MJ, Bonni A, Ritz J, Greenberg ME. Interleukin 2 signaling involves the phosphorylation of Stat proteins. *Proc Natl Acad Sci U S A.* 1995; 92(17):7779-7783.(Biology)
Yamamoto K, Quelle FW, Thierfelder WE. Stat4, a novel gamma interferon activation site-binding protein expressed in early myeloid differentiation. *Mol Cell Biol.* 1994; 14(7):4342-4349.(Biology)
Zhong Z, Wen Z, Darnell JE Jr. Stat3 and Stat4: members of the family of signal transducers and activators of transcription. *Proc Natl Acad Sci U S A.* 1994; 91(11):4806-4810.(Biology)