

Technical Data Sheet

Purified Mouse Anti-Hck

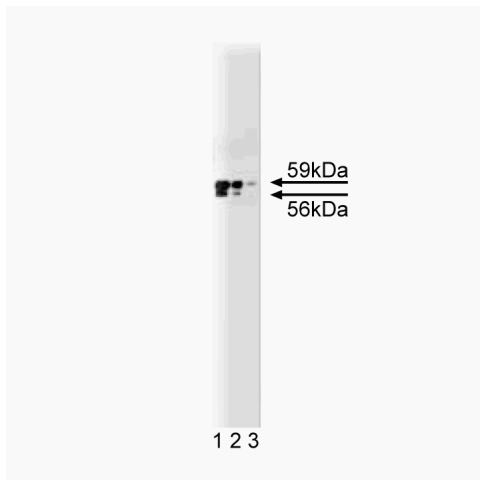
Product Information

Material Number:	610277
Alternate Name:	Hematopoietic Cell Kinase
Size:	50 µg
Concentration:	250 µg/ml
Clone:	18/Hck
Immunogen:	Human Hck aa. 2-300
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Dog Tested in Development: Human
Target MW:	56-59 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

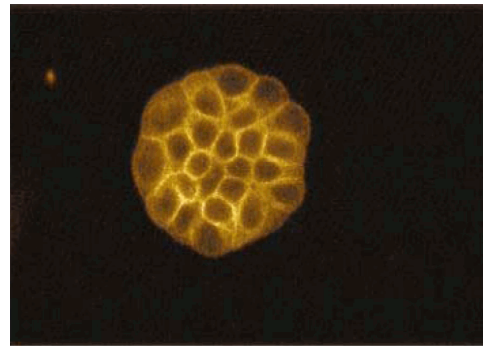
Description

The hematopoietic cell kinase (Hck), a member of the Src family of tyrosine kinases, is primarily expressed in cells of the hematopoietic system. Hck levels have been reported to increase with terminal differentiation in monocyte/macrophages and granulocytes and is further elevated during macrophage activation. Hck also has been reported to be expressed in undifferentiated embryonic stem (ES) cells. This expression is substantially reduced when ES cells are allowed to differentiate in vitro by withdrawal of leukemia inhibitory factor (LIF). Like that of other Src family tyrosine kinases, Hck activity is downregulated by phosphorylation of a conserved C-terminal tyrosine residue. This has reportedly been examined through a “hit and run” gene targeting strategy where Hck tyrosine kinase activity was elevated by replacing the Hck tyrosine 499 residue with phenylalanine. Results indicated that LIF receptor (LIFR) signaling is partially mediated by Hck. Furthermore, Hck is contained within the LIFR complex and is physically associated with gp130, the common signal transducing component of functional LIFR and IL-6 receptor complexes.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Western blot analysis of Hck on a MDCK cell lysate (Canine kidney; ATCC CCL-34). Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of the mouse anti- Hck antibody.



Immunofluorescence staining of MDCK cells (Canine kidney; ATCC CCL-34).

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at -20° C.

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Application Notes

Application

Western blot	Routinely Tested
Immunoprecipitation	Tested During Development
Immunofluorescence	Tested During Development
Immunohistochemistry	Not Recommended

Recommended Assay Procedure:

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

Suggested Companion Products

Catalog Number	Name	Size	Clone
611635	MDCK Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Igs	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Igs	0.5 mg	Polyclonal

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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. 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.

References

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Briggs SD, Smithgall TE. SH2-kinase linker mutations release Hck tyrosine kinase and transforming activities in Rat-2 fibroblasts. *J Biol Chem*. 1999; 274(37):26579-26583.(Biology: Immunoprecipitation, Western blot)

Holtzman DA, Cook WD, Dunn AR. Isolation and sequence of a cDNA corresponding to a src-related gene expressed in murine hemopoietic cells. *Proc Natl Acad Sci U S A*. 1987; 84(23):8325-8329.(Biology)

Quintrell N, Lebo R, Varmus H. Identification of a human gene (HCK) that encodes a protein-tyrosine kinase and is expressed in hemopoietic cells. *Mol Cell Biol*. 1987; 7(6):2267-2275.(Biology)

Shahan TA, Sorenson WG, Simpson J, Kefalides NA, Lewis DM. Tyrosine kinase activation in response to fungal spores is primarily dependent on endogenous reactive oxygen production in macrophages. *J Biol Chem*. 2000; 275(14):10175-10181.(Biology: Immunoprecipitation, In vitro kinase assay, Western blot)