

## Technical Data Sheet

Purified Hamster Anti-Mouse IL-1 $\alpha$ 

## Product Information

<b>Material Number:</b>	<b>550604</b>
<b>Size:</b>	0.5 mg
<b>Concentration:</b>	0.5 mg/ml
<b>Clone:</b>	ALF-161
<b>Immunogen:</b>	Mouse IL-1 $\alpha$ recombinant protein
<b>Isotype:</b>	Armenian Hamster IgG1, $\lambda$
<b>Reactivity:</b>	QC Testing: Mouse
<b>Storage Buffer:</b>	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

## Description

This antibody recognizes the precursor, secreted and membrane-associated forms of mouse interleukin-1 $\alpha$  (IL-1 $\alpha$ ) protein. No cross-reactivity was detected with mouse IL-1 $\beta$ . This antibody does not recognize human IL-1 $\alpha$  or IL-1 $\beta$ . The cross-reactivity of this antibody with IL-1 $\alpha$  from other species has not been tested. The immunogen used to generate this ALF-161 hybridoma was purified, recombinant mouse IL-1 $\alpha$  protein. This is a neutralizing antibody.

## Preparation and Storage

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

Store undiluted at 4° C.

## Application Notes

## Application

ELISA Capture	Routinely Tested
Intracellular staining (flow cytometry)	Tested During Development
Neutralization	Tested During Development
Western blot	Reported

## Recommended Assay Procedure:

**ELISA Capture:** The purified ALF-161 antibody (Cat. No. 550604) is useful as a capture antibody for a sandwich ELISA for measuring mouse IL-1 $\alpha$  protein levels. Purified ALF-161 antibody can be paired with the biotinylated polyclonal IgG fraction of rabbit anti-mouse IL-1 $\alpha$  (Cat. No. 550606) as the detecting antibody, with recombinant mouse IL-1 $\alpha$  as the standard. Purified ALF-161 antibody should be titrated 1-4  $\mu$ g/ml to determine its optimal concentration for ELISA capture. To obtain linear standard curves, doubling dilutions of mouse IL-1 $\alpha$  ranging from ~1000 to 15 pg/ml are recommended for inclusion in each ELISA plate. For specific methodology, please visit the protocols section or chapter on ELISA in the Immune Function Handbook, both of which are posted on our web site, [www.bdbiosciences.com](http://www.bdbiosciences.com).

**Note:** This ELISA antibody pair shows no crossreactivity with other purified recombinant cytokines or receptors that were tested including:

Mouse IL-1 $\beta$ , IL-2, IL-3, IL-4, IL-5, IL-6, IL-8, IL-9, IL-10, IL-12 (p40), IL-12 (p70), IL-16, IL-17, GM-CSF, IFN- $\gamma$ , TNF, TNFRI, TNFRII, MCP-1, CRG

Human IL-1 $\alpha$ , IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-10, IL-12 (p40), IL-12 (p70), IL-13, IL-16, GM-CSF, G-CSF, TNF, LT- $\alpha$ , TNFRI, TNFRII, MCP-1, MCP-2, IFN- $\gamma$ , RANTES, MIG

Rat IL-1 $\alpha$ , IL-2, IL-4, IL-6, IL-10, GM-CSF, IFN- $\gamma$ , MCP-1, TNF.

**Western Blot:** The purified ALF-161 antibody has been found useful for Western blotting. Please note that this application is not routinely tested at BD Biosciences Pharmingen.

**Blocking Control for Intracellular Staining:** The purified ALF-161 antibody (Cat. No. 550604) can be used as a blocking control to demonstrate specificity of IL-1 $\alpha$  staining by PE-labeled ALF-161 antibody (Cat. No. 559810). To perform this control, the fixed/permeabilized cells (~1 million) can be incubated with 5-10  $\mu$ g of unlabeled ALF-161 antibody (Cat. No. 550604) for 15 minutes at 4°C, prior to staining with PE-labeled ALF-161 antibody (eg  $\leq 0.12$   $\mu$ g mAb/1 million cells). The intracellular staining technique and the use of blocking controls have been described in detail by C. Prussin and D. Metcalfe. For specific methodology, please visit the protocols section or chapter on intracellular staining in the Immune Function Handbook, both of which are posted on our web site, [www.bdbiosciences.com](http://www.bdbiosciences.com).

## BD Biosciences

[www.bdbiosciences.com](http://www.bdbiosciences.com)

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	888.259.0187	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country-specific contact information, visit [www.bdbiosciences.com/how\\_to\\_order/](http://www.bdbiosciences.com/how_to_order/)

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

BD, BD Logo and all other trademarks are the property of Becton, Dickinson and Company. ©2007 BD



## Suggested Companion Products

Catalog Number	Name	Size	Clone
550606	Biotin Rabbit Anti-Mouse IL-1 $\alpha$	0.5 mg	C1150-27
559810	PE Hamster Anti-Mouse IL-1 $\alpha$	0.1 mg	ALF-161

## Product Notices

1. Although hamster immunoglobulin isotypes have not been well defined, BD Biosciences Pharmingen has grouped Armenian and Syrian hamster IgG monoclonal antibodies according to their reactivity with a panel of mouse anti-hamster IgG mAbs. A table of the hamster IgG groups, Reactivity of Mouse Anti-Hamster Ig mAbs, may be viewed at [http://www.bdbiosciences.com/pharmingen/hamster\\_chart\\_11x17.pdf](http://www.bdbiosciences.com/pharmingen/hamster_chart_11x17.pdf).
2. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.
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

Chang MJ, Modzelewski RA, Russell DM, Johnson CS. Interleukin 1 alpha and gamma-interferon induction of nitric oxide production from murine tumor-derived endothelial cells. *Cancer Res.* 1996; 56(4):886-891.(Biology)

Fuhlbrigge RC, Sheehan KC, Schreiber RD, Chaplin DD, Unanue ER. Monoclonal antibodies to murine IL-1 alpha. Production, characterization, and inhibition of membrane-associated IL-1 activity. *J Immunol.* 1988; 141(8):2643-2650.(Clone-specific: Neutralization)

Kitamura T, Takaku F, Miyajima A. IL-1 up-regulates the expression of cytokine receptors on a factor-dependent human hemopoietic cell line, TF-1. *Int Immunol.* 1991; 3(6):571-577.(Clone-specific: Neutralization)

Kitamura T, Tange T, Terasawa T, et al. Establishment and characterization of a unique human cell line that proliferates dependently on GM-CSF, IL-3, or erythropoietin. *J Cell Physiol.* 1989; 140(2):323-334.(Clone-specific: Neutralization)

Prussin C, Metcalfe DD. Detection of intracytoplasmic cytokine using flow cytometry and directly conjugated anti-cytokine antibodies. *J Immunol Methods.* 1995; 188(1):117-128.(Methodology: IC/FCM Block)