

## STAT3 [pY705] ABfinity™ Recombinant Rabbit Monoclonal Antibody – Purified

Publication Part no. MAN0004981

Rev. Date: 21 August 2011

Catalog Number: 701062

Store at 2–8°C

**Clonality:** Monoclonal  
**Concentration:** 0.5 mg/mL  
**Quantity:** 100 µg  
**Volume:** 200 µL

**Host/Class:** Rabbit IgG  
**Reactivity:** Human STAT3  
**Predicted Reactivity:** Human

### Product Description

STAT3 belongs to the family of STAT (signal transducers and activators of transcription) proteins which are phosphorylated by receptor associated kinases, translocate to the nucleus, and act as transcription factors in response to cytokines and growth factors. Coactivators such as CREB-binding protein are required for the transcriptional activation by STAT3. It also can be activated by Interferon-alpha, Interferon-gamma, EGF, PDGF and IL6. Phosphorylation on tyrosine 705 by JAK1 and JAK2 is essential for STAT3 dimer formation, nuclear translocation, and DNA binding activity. In humans, the STAT3 gene is located on the q arm of chromosome 17.

### Product Specifications

**Immunogen:** Phosphopeptide corresponding to amino acids 698–709 of Human STAT3  
**Alternate Names:** APRF  
**Apparent MW:** ~90 kDa  
**Gene ID:** 6774  
**Protein Accession No.:** P40763  
**Sequence Identity:** Human  
**Sequence Homology:** Mouse, Rat, Monkey  
**Clone/PAD:** 3H16L22  
**Lot:** See product label

### Product Applications

Application	Species	Test Material	Concentration
Western blotting	Human	HeLa cells	1–3 µg/mL
Indirect ELISA	Human	Phosphopeptide	5x10 <sup>-4</sup> to 10 µg/mL

### Storage and Handling

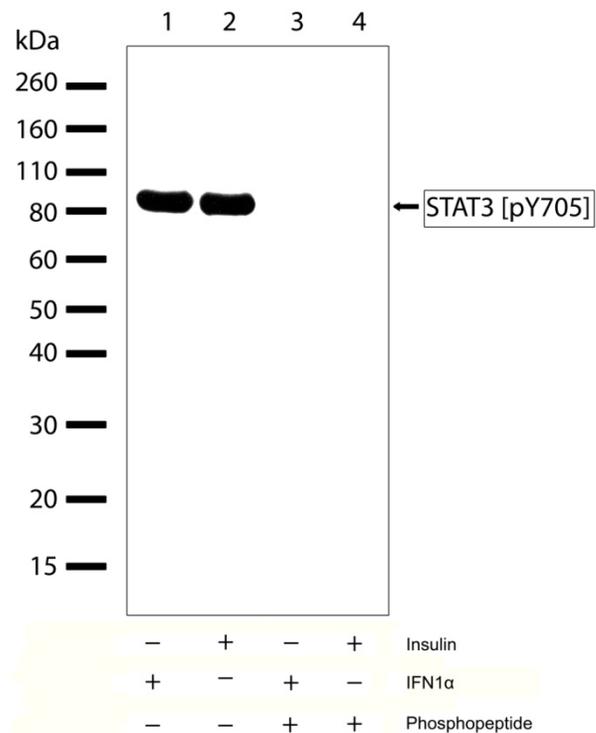
Store the antibody at 2–8°C for up to 1 month, or –20°C for long storage. Avoid repeated freezing and thawing.

### Stability

Expires one year from date of receipt when stored as instructed.

### Storage Buffer

Phosphate buffered saline (PBS) with 0.09% sodium azide.



**Figure 1** Western blot analysis of STAT3 [pY705] ABfinity™ Recombinant Rabbit Monoclonal Antibody (Cat. no. 701062). Western Blot analysis was performed on whole cell extracts of HeLa treated with IFN1α (150 ng/mL for 15 minutes, lane 1 and 3) or Insulin (100 ng/mL for 15 minutes, lane 2 and 4). A band corresponding to phosphorylated STAT3 at ~90 kDa was detected with STAT3 [pY705] ABfinity™ Recombinant Rabbit Monoclonal Antibody at a concentration of 2.5 µg/mL (lane 1 and 2). To confirm specificity, competition was performed with the phosphopeptide (lane 3 and 4).

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## Safety Data Sheets (SDS)

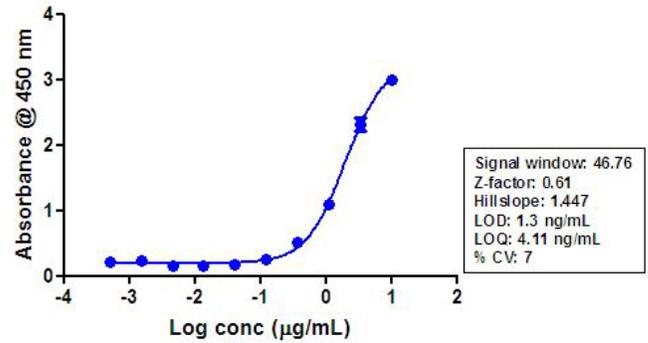
Safety Data Sheets (SDSs) are available at [www.invitrogen.com/sds](http://www.invitrogen.com/sds).

## Certificate of Analysis

The Certificate of Analysis provides detailed quality control and product qualification information for each product. Certificates of Analysis are available on our website. Go to [www.invitrogen.com/support](http://www.invitrogen.com/support) and search for the Certificate of Analysis by product lot number, which is printed on the box.

## Related Products

Product Name	Quantity	Catalog No.
iBlot® Dry Blotting System	1 unit	IB1001
WesternBreeze™ Chromogenic Kit Anti-Rabbit	1 kit	WB7105
WesternBreeze™ Chemiluminescent Kit, Anti-Rabbit	1 kit	WB7106
Goat anti-mouse (H+L), HRP conj.	1 mg	G21040
Goat anti-rabbit (H+L), HRP conj.	1 mg	G21234
Goat anti-mouse (H+L), AP conj.	1 mg	G21060
Goat anti-rabbit (H+L), AP conj.	1 mg	G21079
Nitrocellulose, 0.2 µm	20/pack	LC2000



**Figure 2** Indirect ELISA of STAT3 [pY705] ABfinity™ Recombinant Rabbit Monoclonal Antibody (Cat. no. 701062). Indirect ELISA was performed using various dilutions of STAT3 [pY705] ABfinity™ Recombinant Rabbit Monoclonal Antibody (Cat. no. 701062) to detect endogenous STAT3 protein in HeLa treated with Insulin coated onto the plate. A non-linear regression analysis was performed (4 PL) and LOD and LOQ for the antibody was determined.

### Explanation of symbols

Symbol	Description	Symbol	Description
	Catalogue Number		Batch code
	Research Use Only		<i>In vitro</i> diagnostic medical device
	Use by		Temperature limitation
	Manufacturer		European Community authorised representative
	Without, does not contain		With, contains
	Protect from light		Consult accompanying documents
	Directs the user to consult instructions for use (IFU), accompanying the product.		

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