



# Mouse anti-Human ISGF3γ monoclonal antibody, clone 7/JTHG4γ (CABT-B9222)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

Immunogen	Human ISGF3γ (p48) aa.126-351
Isotype	IgG1
Source/Host	Mouse
Species Reactivity	Human
Clone	7/JTHG4γ
Purification	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Conjugate	Unconjugated
Applications	WB; IF; IHC
Format	Liquid
Concentration	250 µg/ml
Size	50 µg
Buffer	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.
Storage	Store undiluted at -20°C.

## BACKGROUND

Introduction	ISGF3γ is a nuclear DNA-binding protein. ISGF3 (Interferon Stimulated Gene Factor-3) is the
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primary transcription activator induced by the binding of interferon  $\alpha$  (IFN $\alpha$ ) to cell surface receptors. The functional ISGF3 is a complex of four polypeptides of 113 kDa (Stat2), 91 kDa (Stat1 $\alpha$ ), 84 kDa (Stat1 $\beta$ ), and 48 kDa. The first three polypeptides (also known as ISGF3 $\gamma$ ) each contain SH2 and SH3 domains. In response to either IFN $\alpha$ , IFN $\gamma$ , EGF, PDGF, or CSF-1 binding their respective receptors, the cytoplasmic ISGF3 $\alpha$  subunits are tyrosine-phosphorylated and translocated to the nucleus where they form an active complex with the 48 kDa protein (ISGF3 $\gamma$ ). This complex is responsible for modulating the transcription of interferon-stimulated genes (ISGs). Activated ISGF3 $\alpha$  stabilizes ISGF3 $\gamma$ -DNA interactions. This results in a ternary protein-DNA complex with a 25-fold greater stability than ISGF3 $\gamma$ -DNA. Thus, growth factors and cytokines activate a common signal transduction pathway that leads to the phosphorylation and nuclear translocation of a group of latent cytoplasmic transcription factors.

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**Keywords**

IRF9; interferon regulatory factor 9; p48; IRF-9; ISGF3; ISGF3G; ISGF-3 gamma; ISGF3 p48 subunit; interferon-stimulated gene factor 3 gamma; transcriptional regulator ISGF3 subunit gamma

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