Product Datasheet

Phospho-Stat3 (Tyr705) (B12) rabbit mAb Antibody (orb1946365)

Catalog Number	orb1946365
Category	Antibodies
Description	Considered an oncogene, Stat3 is constitutively active in 70% of solid and hematological tumors, including leukemia, lymphoma, and multiple myeloma. The IL-6-Jak-Stat3 pathway can mediate cancer inflammation through both mutation of key regulatory genes and environmental stressors. Attempts at directly targeting Stat3 in cancer therapy have focused on the development of phosphopeptides and mimics that interact with the phospho-tyrosine-SH2 domain of Stat3 in an effort to destabilize active dimers and prevent DNA binding. Stat3 is primarily phosphorylated at Tyr705 upon activation of the Jak-Stat3 pathway. Secondary phosphorylation at Tyr727 at the C-terminus is thought to occur after Tyr705 phosphorylation. However, studies in melanoma have shown constitutive phosphorylation at Tyr727 that promotes survival of these cancerous cells.
Clonality	Monoclonal
Species/Host	Rabbit
Isotype	Rabbit IgG1k
Conjugation	Unconjugated
Reactivity	Human, Mouse
Form/Appearance	Liquid
Concentration	0.5 mg/mL
Buffer/Preservatives	1X PBS, 0.02% NaN3, 50% Glycerol, 0.1% rAlbumin

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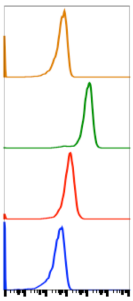
Purification	Protein A+G
Immunogen	A synthetic phospho-peptide corresponding to residues surrounding Tyr705 of human phospho Stat3
UniProt ID	**P40763**
Tested applications	FC
Dilution range	1µg/mL - 0.001µg/mL. It is recommended that the reagent be titrated for optimal performance for each application. See product image legends for additional information.
Cross Reactivity	Predicted to work with mouse, rat and other homologues.
Clone Number	Stat3Y705-B12
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Note	For research use only
Expiration Date	12 months from date of receipt.



$WELLID	Treatment	Median : BL1-A
B12 + PP	IFNa PV	572
B12 0.005 ug/mL	IFNa PV	10438
B12 0.005 ug/mL	Ctrl	1333
2°Ab	Ctrl	373

Flow cytometric analysis of Jurkat cells secondary antibody only negative control (blue) untreated (red) treated with IFNα IL-4 and pervanadate (green) treated + blocked with phospho-peptide (brown) using Phospho-Stat3 (Tyr705) antibody Stat3Y705-B12 (5 ng/mL) Cat. #orb1946365.

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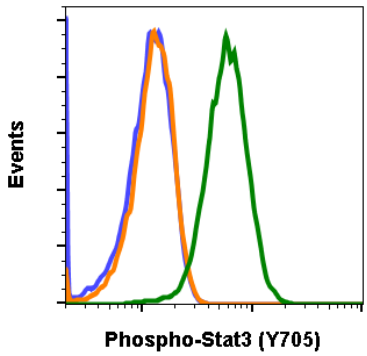
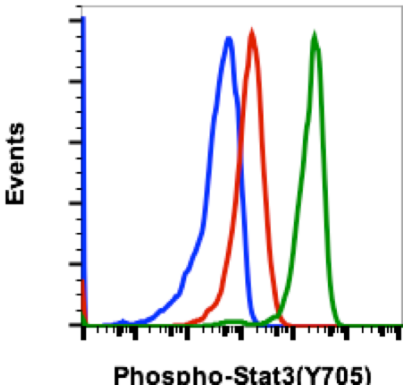
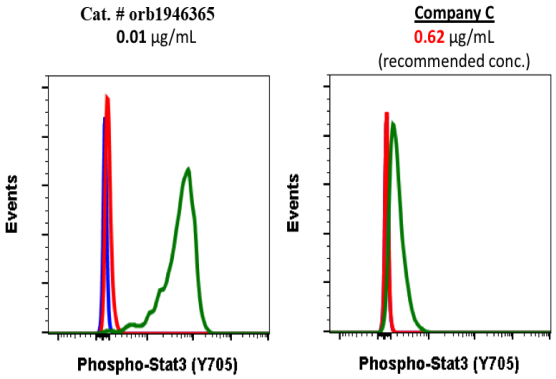


Stat3Y705-B12 recognizes basal phosphorylation levels in mouse cells. Flow cytometric analysis of L929 cells secondary antibody only (blue) or 0.1 µg/mL of isotype control Cat. #orb1946241 (orange) or of Phospho-Stat3 (Tyr705) antibody Stat3Y705-B12 (green) Cat. #orb1946365.



Flow cytometric analysis of Jurkat cells secondary antibody only negative control (blue) or untreated (red) or treated with IFNα IL-4 and pervanadate (green) using Phospho-Stat3 (Tyr705) antibody Stat3Y705-B12 (5 ng/mL). Cat. #orb1946365.



Flow cytometric analysis of Jurkat cells secondary antibody only negative control (blue) or untreated (red) or treated with IFNα + IL-4 + pervanadate (green) using Phospho-Stat3 (Y705) antibody Stat3Y705-B12 (Cat. #orb1946365) or Company C antibody at 0.62 µg/mL (manufacturer's recommended concentration).

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