OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850
UNITED STATES
Phone: +1-888-267-4436
Fax: +1-301-340-8606
techsupport@origene.com

OriGene Technologies GmbH
Schillerstr. 5
32052 Herford
GERMANY
Phone: +49-5221-34606-0
Fax: +49-5221-34606-11
info-de@origene.com

AM00149PU-N Monoclonal Antibody to STAT3 pSer727 (incl. pos. control) - Purified

Alternate names: APRF, Acute-phase response factor, STAT-3, Signal transducer and activator of transcription 3

Quantity: 0.1 mg

Background: The STAT proteins serve as both cytoplasmic signal transducers and nuclear activators of transcription. STATs are mediators involved in cytokine signalling. In response to a specific cytokine signal, STAT proteins are phosphorylated on conserved tyrosine residues. Phosphorylated STAT proteins dimerize via their SH2 domains and move to the nucleus. The STAT dimers bind to specific DNA elements resulting in transcriptional regulation of downstream target genes. Besides tyrosine phosphorylation, STAT3 activity is regulated by serine phosphorylation at serine 727. Recent reports indicate that both MAP kinase and SAP kinase induce phosphorylaton at serine 727.

Uniprot ID: P40763

NCBI: NP_003141.2

GeneID: 6774

Host / Isotype: Mouse / IgG1

Recommended Isotype Controls: SM10P (for use in human samples), SM20P (for use in rat samples), AM03095PU-N

Clone: 23G5

Immunogen: Synthetic phosphopeptide conjuagted to KLH.
Epitope: ...L P M pS F R T...

Format:
State: Lyophilized purified IgG fraction
Purification: Size Exclusion Chromatography
Buffer System: 1ml 2 x PBS with 0.09% Sodium Azide, PEG and Sucrose
Reconstitution: Restore with 1 ml H2O (15 min, RT).

Applications:
Western Blot: 0.5 µg/ml for HRPO/ECL detection.
Recommended blocking buffer: Casein/Tween 20 based blocking and blot incubation buffer.
ELISA: 0.1 µg/ml.
Immunohistochemistry.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Molecular Weight: 92 kDa

Specificity:

This antibody specifically recognizes STAT3 phosphorylated at Ser727. The antibody does not crossreact with the non-phosphorylated form of STAT3 nor with unrelated serine-phosphorylated proteins.
Species: Human, Mouse, Rat, Dog.
Other species not tested.

Storage:

Store lyophilized (preferably in a desiccator) at -20°C and reconstituted (aliquote and freeze in liquid nitrogen) at -80°C.
Avoid repeated freezing and thawing.
Thaw aliquots at 37°C. Thawed aliquots may be stored at 4°C up to 3 months.
Shelf life: one year from despatch.

General Readings:

***Positive Control Provided*: Cell lysate from HepG2 pervanadate treated.**

Format: Lyophilized cell lysate from HepG2 cells.
Serum starved cells were treated for 15min with pervanadate.

Reconstitution: Restore by addition of 200 µl H20. After complete solubilization add 200 µl 2x SDS-PAGE sample buffer, mix and incubate at 90°C for 5 min.

Storage: Aliquote and store frozen. Avoid repeated freeze/thaw cycles.

Application: The positive control cell lysate is recommended for immunoblot applications. 20 µl of positive control cell lysate correspond to ca. 80.000 cells. Use 20 µl / lane (mini gel) for HRPO/ECL detection of the target proteins.

Please note: The lyophilized cell lysates contain SDS and are not recommended for applications with native proteins such as immunoprecipitation.

Pictures:

Phosphospecificity Whole cell extracts of control (1), EGF stimulated (2) or pervanadate treated (3) A 431 tumor cells were applied to SDS-PAGE (ca 20.000 cells per lane) and transferred to a PVDF membrane. The immunoblot was probed with mab STAT3-23G5 (0.5 µg/ ml) for 1h at RT and developed by ECL (exp. time: 0 sec).