Revision 1

#5095 Store at -20C

Phospho-Nur77 (Ser351) (D22G5) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Endogenous	70-80	Rabbit IgG	#P22736	3164

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Phospho-Nur77 (Ser351) (D22G5) Rabbit mAb detects endogenous levels of Nur77 protein only when phosphorylated at Ser351.

Species predicted to react based on 100% sequence homology

Mouse, Rat

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser351 of human Nur77 protein.

Background

Nur77, also known as TR3 and NGFI-B, is an immediate-early response gene and an orphan member of the steroid/thyroid/retinoid receptor superfamily (1-3). Nur77 is composed of an amino-terminal transactivation domain, a central DNA-binding domain and a carboxy-terminal ligand-binding domain. Expression of Nur77 is rapidly induced by a variety of stimuli, including apoptotic, mitogenic and stress signals (1-6). It has been proposed to have many functions related to cell proliferation, differentiation and apoptosis. Nur77 has been extensively studied in T cells where it has been implicated in the process of negative selection and TCR-mediated apoptosis (5,6). Nur77 binds to specific DNA elements leading to the regulation of target genes (7). As a possible mechanism for regulating apoptosis, Nur77 can induce the expression of apoptotic genes such as FasL and TRAIL (8,9). Nur77 is heavily phosphorylated by multiple kinases, which may affect its transactivation activity as well as its subcellular localization (4,10,11). Translocation of Nur77 from the nucleus to the mitochondria can regulate its association with Bcl-2 and control the release of cytochrome c, thereby triggering apoptosis (12,13).
Phosphorylation of Nur77 by Akt or RSK occurs at Ser351 (corresponding to rat Nur77 Ser350 and Ser354 of mouse Nur77), a site within the Nur77 DNA binding domain (14-16). Serine phosphorylation at this site can down regulate transcriptional activity of Nur77 (10,17).

Background References

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Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

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