Revision 1

Phospho-p63 (Ser160/162) Antibody

#4981 Store at -20C

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:
W, IHC-P, FC-FP	H	Endogenous	75	Rabbit

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunohistochemistry (Paraffin)	1:150
Flow Cytometry (Fixed/Permeabilized)	1:25

Storage

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

Specificity/Sensitivity

Phospho-p63 (Ser160/162) Antibody detects endogenous levels of p63 when phosphorylated at Serine 160/162. It will also react with p63 singly phosphorylated at Ser160 or singly phosphorylated at Ser162.

Species predicted to react based on 100% sequence homology

Mouse, Rat, Chicken, Xenopus

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser160 of human TAp63-alpha. Antibodies are purified by protein A and peptide affinity chromatography.

Background

The p53 tumor suppressor protein plays a major role in cellular response to DNA damage and other genomic aberrations. Activation of p53 can lead to either cell cycle arrest and DNA repair or apoptosis (1). In addition to p53, mammalian cells contain two p53 family members, p63 and p73, which are similar to p53 in both structure and function (2). While p63 can induce p53-responsive genes and apoptosis, mutation of p63 rarely results in tumors (2). Research investigators frequently observe amplification of the p63 gene in squamous cell carcinomas of the lung, head and neck (2,3). The p63 gene contains an alternative transcription initiation site that yields a truncated ΔNp63 lacking the transactivation domain, and alternative splicing at the carboxy-terminus yields the α, β, and γ isoforms (3,4).
TAp63-alpha (full-length) contains multiple serine residues followed by proline (Ser-Pro motif) that are potential cdk substrates expected to be phosphorylated in mitosis. Among these are Ser160, Ser162, Ser395, and Ser455.

Background References

1. Levine, A.J. (1997) *Cell* 88, 323-31.
2. Waltermann, A. et al. (2003) *Oncogene* 22, 5686-93.
3. Hibi, K. et al. (2000) *Proc Natl Acad Sci U S A* 97, 5462-7.
4. Yang, A. et al. (1999) *Nature* 398, 714-8.

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 **IHC-P:** Immunohistochemistry (Paraffin) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: Human

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