


## Product datasheet

### Anti-Raf1 (phospho S621) antibody ab4767

[1 References](#) [1 Image](#)

#### Overview

<b>Product name</b>	Anti-Raf1 (phospho S621) antibody
<b>Description</b>	Rabbit polyclonal to Raf1 (phospho S621)
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Rat 
<b>Immunogen</b>	Synthetic peptide corresponding to Human Raf1 (phospho S621). Database link: <a href="#">P04049</a>
<b>Positive control</b>	Immunoprecipitates or cell lysates from EGF-stimulated Hek293 cells transfected with c-Raf.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
<b>Storage buffer</b>	pH: 7.30 Preservative: 0.05% Sodium azide Constituents: PBS, 0.1% BSA  BSA is IgG and protease free
<b>Purity</b>	Immunogen affinity purified
<b>Purification notes</b>	Purified from rabbit serum by sequential epitope-specific chromatography. The antibody has been negatively preadsorbed using a non-phosphopeptide corresponding to the site of phosphorylation to remove antibody that is reactive with non-phosphorylated c-Raf. The final

product is generated by affinity chromatography using a c-Raf-derived peptide that is phosphorylated at serine 621.

<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

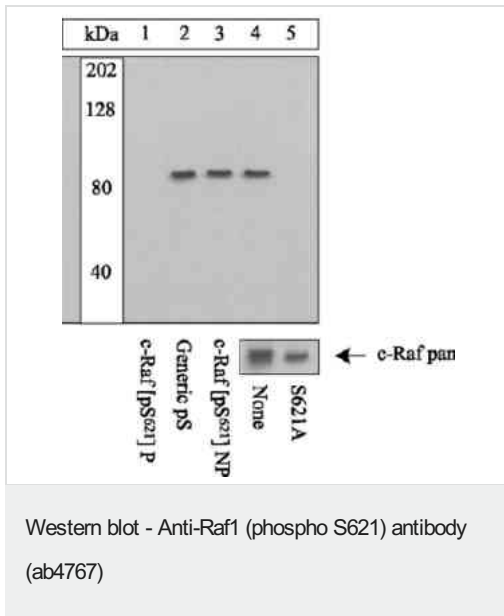
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab4767 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Predicted molecular weight: 74 kDa.

## Target

<b>Function</b>	Involved in the transduction of mitogenic signals from the cell membrane to the nucleus. Part of the Ras-dependent signaling pathway from receptors to the nucleus. Protects cells from apoptosis mediated by STK3.
<b>Tissue specificity</b>	In skeletal muscle, isoform 1 is more abundant than isoform 2.
<b>Involvement in disease</b>	Defects in RAF1 are the cause of Noonan syndrome type 5 (NS5) [MIM:611553]. Noonan syndrome (NS) is a disorder characterized by dysmorphic facial features, short stature, hypertelorism, cardiac anomalies, deafness, motor delay, and a bleeding diathesis. It is a genetically heterogeneous and relatively common syndrome, with an estimated incidence of 1 in 1000-2500 live births. Defects in RAF1 are the cause of LEOPARD syndrome type 2 (LEOPARD2) [MIM:611554]. LEOPARD syndrome is an autosomal dominant disorder allelic with Noonan syndrome. The acronym LEOPARD stands for lentigines, electrocardiographic conduction abnormalities, ocular hypertelorism, pulmonic stenosis, abnormalities of genitalia, retardation of growth, and deafness.
<b>Sequence similarities</b>	Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family. RAF subfamily. Contains 1 phorbol-ester/DAG-type zinc finger. Contains 1 protein kinase domain. Contains 1 RBD (Ras-binding) domain.
<b>Post-translational modifications</b>	Phosphorylated upon DNA damage, probably by ATM or ATR. Phosphorylation at Thr-269 increases its kinase activity. Phosphorylation at Ser-259 induces the interaction with YWHAZ and inactivates kinase activity. Dephosphorylation of Ser-259 by the complex containing protein phosphatase 1, SHOC2 and M-Ras/MRAS relieves inactivation, leading to stimulate RAF1 activity.
<b>Cellular localization</b>	Cytoplasm. Cell membrane. Colocalizes with RGS14 and BRAF in both the cytoplasm and membranes.

## Images



#### Peptide Competition and Mutant Analysis:

Immunoprecipitates prepared from Hek293 cells stimulated with EGF and overexpressing wild-type c-Raf (1-4) or c-Raf mutant S621A (5) were resolved by SDS-PAGE on a 10% polyacrylamide gel and transferred to PVDF. Membranes were blocked with a 5% BSA-TBST buffer overnight at 4°C, then were incubated with 0.50 µg/mL ab4767 antibody for two hours at room temperature in a 3% BSA-TBST buffer, following prior incubation with: the phosphopeptide immunogen (1), a generic phosphoserine containing peptide (2), the non-phosphopeptide corresponding to the immunogen (3), or, no peptide (4, 5). The smaller blot presented below shows the relative amount of protein in the wild-type vs. the S621A mutant protein via a c-Raf pan antibody. After washing, membranes were incubated with goat F(ab')<sub>2</sub> anti-rabbit IgG alkaline phosphatase and signals were detected using the Tropix WesternStar method. The data show that only the peptide c

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