

# Recombinant human BRAF (mutated V600K) protein ab204191

2 Images

Description

Product name	Recombinant human BRAF (mutated V600K) protein		
Biological activity	The specific activity of ab204191 was determined to be 2600 nmol/min/mg.		
Purity	> 80 % Densitometry. Affinity purified.		
Expression system	Baculovirus infected Sf9 cells		
Accession	<b><u>P15056</u></b>		
Protein length	Protein fragment		
Animal free	No		
Nature	Recombinant		
Species	Human		
Sequence	DLIRDQGFRG DGGSTTGLSA TPPASLPGSL TNVKALQKSP GPQREKSSSS SSIEDNRNRMKT LGRRDSSDDW EIPDGQITVG QRIGSGSFGT VYKGKWHGDV AVKMLNVTAP TPQQLQAFKN EVGVLRLKTRH VNILLFMGYS TKPQLAVTQ WCEGSSLYHH LHIETKFEM IKLIDIARQT AQGMDYLHAK SIIHRDLKSN NIFLHEDLTV KIGDFGLATK KSRWSGSHQF EQLSGSILWM APEVIRMQDK NPYSFQSDVY AFGMVLYELM TGQLPYSNIN NRDQIIFMVG RGYLSPDLK VRSNCPKAMK RLMAECLKKK RDERPLFPQI LASIELLARS LPKIHRASE PSLNRAGFQT EDFSLYACAS PKTPIQAGGY GAFPVH		
Predicted molecular weight	69 kDa including tags		
Amino acids	381 to 766		
Modifications	mutated V600K		
Tags	GST tag N-Terminus		
Additional sequence information	NM_004333. exon 9-18.		

Specifications

Our **Abpromise guarantee** covers the use of **ab204191** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

**Applications** Functional Studies

SDS-PAGE

**Form** Liquid

## Preparation and Storage

**Stability and Storage** Shipped on Dry Ice. Store at -80°C. Avoid freeze / thaw cycle.

pH: 7.50

Constituents: 0.79% Tris HCl, 0.87% Sodium chloride, 25% Glycerol (glycerin, glycerine), 0.31% Glutathione, 0.003% EDTA, 0.002% PMSF, 0.004% DTT

This product is an active protein and may elicit a biological response in vivo, handle with caution.

## General Info

**Function** Involved in the transduction of mitogenic signals from the cell membrane to the nucleus. May play a role in the postsynaptic responses of hippocampal neuron.

**Tissue specificity** Brain and testis.

**Involvement in disease** Note=Defects in BRAF are found in a wide range of cancers. Defects in BRAF may be a cause of colorectal cancer (CRC) [MIM:114500]. Defects in BRAF are involved in lung cancer (LNCR) [MIM:211980]. Defects in BRAF are involved in non-Hodgkin lymphoma (NHL) [MIM:605027]. NHL is a cancer that starts in cells of the lymph system, which is part of the body's immune system. NHLs can occur at any age and are often marked by enlarged lymph nodes, fever and weight loss. Defects in BRAF are a cause of cardiofaciocutaneous syndrome (CFC syndrome) [MIM:115150]; also known as cardio-facio-cutaneous syndrome. CFC syndrome is characterized by a distinctive facial appearance, heart defects and mental retardation. Heart defects include pulmonic stenosis, atrial septal defects and hypertrophic cardiomyopathy. Some affected individuals present with ectodermal abnormalities such as sparse, friable hair, hyperkeratotic skin lesions and a generalized ichthyosis-like condition. Typical facial features are similar to Noonan syndrome. They include high forehead with bitemporal constriction, hypoplastic supraorbital ridges, downslanting palpebral fissures, a depressed nasal bridge, and posteriorly angulated ears with prominent helices. The inheritance of CFC syndrome is autosomal dominant. Defects in BRAF are the cause of Noonan syndrome type 7 (NS7) [MIM:613706]. Noonan syndrome is a disorder characterized by facial dysmorphic features such as hypertelorism, a downward eyeslant and low-set posteriorly rotated ears. Other features can include short stature, a short neck with webbing or redundancy of skin, cardiac anomalies, deafness, motor delay and variable intellectual deficits. Defects in BRAF are the cause of LEOPARD syndrome type 3 (LEOPARD3) [MIM:613707]. LEOPARD3 is a disorder characterized by lentigines, electrocardiographic conduction abnormalities, ocular hypertelorism, pulmonic stenosis, abnormalities of genitalia, retardation of growth, and sensorineural deafness. Note=A chromosomal aberration involving BRAF is found in pilocytic astrocytomas. A tandem duplication of 2 Mb at 7q34 leads to the expression of a KIAA1549-BRAF fusion protein with a constitutive kinase activity and inducing cell transformation.

**Sequence similarities** Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family. RAF subfamily.

Contains 1 phorbol-ester/DAG-type zinc finger.

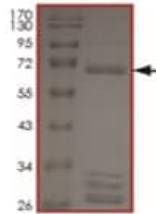
Contains 1 protein kinase domain.

Contains 1 RBD (Ras-binding) domain.

#### Cellular localization

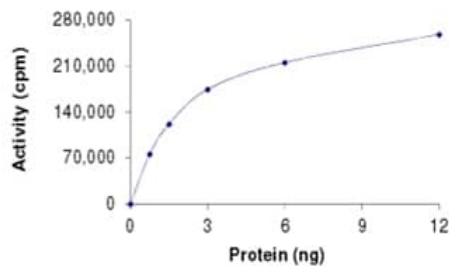
Nucleus. Cytoplasm. Cell membrane. Colocalizes with RGS14 and RAF1 in both the cytoplasm and membranes.

#### Images



SDS-PAGE analysis of ab204191.

SDS-PAGE - Recombinant human BRAF (mutated V600K) protein (ab204191)



Kinase Assay demonstrating specific activity of ab204191.

Functional Studies - Recombinant human BRAF (mutated V600K) protein (ab204191)

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