abcam

Product datasheet

Recombinant Human p53R2 protein ab153320

1 Image

Description

Product name Recombinant Human p53R2 protein

Expression system Wheat germ

Protein length Protein fragment

Animal free No

Nature Recombinant

Species Human

Sequence DPERPEAAGLDQDERSSSDTNESEIKSNEEPLLRKSSRR

FVIFPIQYPDI

WKMYKQAQASFWTAEEVDLSKDLPHWNKLKAD

Amino acids 3 to 84

Tags GST tag N-Terminus

Specifications

Our Abpromise guarantee covers the use of ab153320 in the following tested applications.

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

Applications Western blot

ELISA

Form Liquid

Additional notes

Preparation and Storage

Stability and Storage Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

pH: 8.00

Constituents: 0.31% Glutathione, 0.79% Tris HCI

General Info

Function

Plays a pivotal role in cell survival by repairing damaged DNA in a p53/TP53-dependent manner. Supplies deoxyribonucleotides for DNA repair in cells arrested at G1 or G2. Contains an iron-tyrosyl free radical center required for catalysis. Forms an active ribonucleotide reductase (RNR) complex with RRM1 which is expressed both in resting and proliferating cells in response to DNA damage.

Tissue specificity

Widely expressed at a high level in skeletal muscle and at a weak level in thymus. Expressed in epithelial dysplasias and squamous cell carcinoma.

Pathway

Genetic information processing; DNA replication.

Involvement in disease

Defects in RRM2B are the cause of mitochondrial DNA depletion syndrome type 8A (MTDPS8A) [MIM:612075]. A disorder due to mitochondrial dysfunction characterized by various combinations of neonatal hypotonia, neurological deterioration, respiratory distress, lactic acidosis, and renal tubulopathy.

Defects in RRM2B are the cause of mitochondrial DNA depletion syndrome type 8B (MTDPS8B) [MIM:612075]. A disease due to mitochondrial dysfunction and characterized by ophthalmoplegia, ptosis, gastrointestinal dysmotility, cachexia, peripheral neuropathy.

Defects in RRM2B are the cause of progressive external ophthalmoplegia with mitochondrial DNA deletions autosomal dominant type 5 (PEOA5) [MIM:613077]. A disorder characterized by progressive weakness of ocular muscles and levator muscle of the upper eyelid. In a minority of cases, it is associated with skeletal myopathy, which predominantly involves axial or proximal muscles and which causes abnormal fatigability and even permanent muscle weakness. Ragged-red fibers and atrophy are found on muscle biopsy. A large proportion of chronic ophthalmoplegias are associated with other symptoms, leading to a multisystemic pattern of this disease. Additional symptoms are variable, and may include cataracts, hearing loss, sensory axonal neuropathy, ataxia, depression, hypogonadism, and parkinsonism.

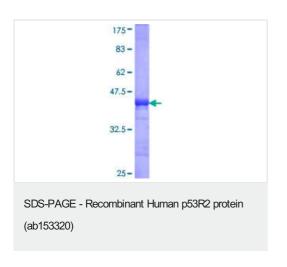
Sequence similarities

Belongs to the ribonucleoside diphosphate reductase small chain family.

Cellular localization

Cytoplasm. Nucleus. Translocates from cytoplasm to nucleus in response to DNA damage.

Images



ab153320 on a 12.5% SDS-PAGE stained with Coomassie Blue.

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