

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                                          |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human p16INK4a/CDKN2A in Western blots.                                                |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Goat IgG                                                                            |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                                      |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>E. coli</i> -derived recombinant human p16INK4a/CDKN2A<br>Glu2-Asp156<br>Accession # P42771 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 488<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 515-545 nm            |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                                   |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |                                                                                                |

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

|                            |                                                                        |
|----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>        | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunocytochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

p16INK4a (16 kDa Inhibitor of CDK4-a; also MTS1, CDK41 and CDKN2) is a 16 kDa member of the CDKN2 cyclin-dependent kinase inhibitor family of molecules. It is widely expressed (although not in skeletal muscle) and serves as a negative regulator of cell proliferation. It does so by associating with CDK4 or 6, thereby blocking cyclin binding and subsequent Ser/Thr kinase activity. Human p16INK4a is 156 amino acids (aa) in length. It contains four "L" shaped ankyrin repeats (aa 11-139) that interact with cyclin. There are at least two splice variants for p16INK4a. One is termed p12 and shows a 65 aa substitution for aa 52-156; the other simply shows an alternate start site at Met52. Full-length human p16INK4a shares 63% aa identity with mouse p16INK4a.

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