**BACKGROUND**

Members of the Id family of basic helix-loop-helix (bHLH) proteins include Id1, Id2, Id3 and Id4. They are ubiquitously expressed and dimerize with members of the class A and B HLH proteins. Due to the absence of the basic region, the resulting heterodimers cannot bind DNA. The Id-type proteins thus appear to negatively regulate DNA binding of bHLH proteins. Since Id1 inhibits DNA binding of E12 and MyoD, it apparently functions to inhibit muscle-specific gene expression. Under conditions that facilitate muscle cell differentiation, the Id protein levels fall, allowing E12 and/or E47 to form heterodimers with MyoD and myogenin, which in turn activate myogenic differentiation. It has been shown that expression of each of the Id proteins is strongly dependent on growth factor activation and that reduction of Id mRNA levels by antisense oligonucleotides leads to a delayed reentry of arrested cells into the cell cycle following growth factor stimulation.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: ID3 (human) mapping to 1p36.12; Id3 (mouse) mapping to 4 D3.

**SOURCE**

Id3 (2B11) is a mouse monoclonal antibody raised against amino acids 1-119 of Id3 of mouse origin.

**PRODUCT**

Each vial contains 200 µg IgG, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Id3 (2B11) is available conjugated to agarose (sc-56712 AC), 500 µg/0.25 ml agarose in 1 ml, for IP, to HRP (sc-56712 HRP), 200 µg/ml, for WB, IHC(PO) and ELISA; to either phycoerythrin (sc-56712 PE), fluorescein (sc-56712 FITC), Alexa Fluor® 488 (sc-56712 AF488), Alexa Fluor® 546 (sc-56712 AF546), Alexa Fluor® 594 (sc-56712 AF594) or Alexa Fluor® 647 (sc-56712 AF647), 200 µg/ml, for WB (RGB), IF, IHC(PO) and FCM; and to either Alexa Fluor® 680 (sc-56712 AF680) or Alexa Fluor® 790 (sc-56712 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

Id3 (2B11) is recommended for detection of Id3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Id3 siRNA (h): sc-38002, Id3 siRNA (m): sc-38003, Id3 shRNA Plasmid (h): sc-38002-SH, Id3 shRNA Plasmid (m): sc-38003-SH, Id3 shRNA (h) Lentiviral Particles: sc-38002-V and Id3 shRNA (m) Lentiviral Particles: sc-38003-V.

Molecular Weight of Id3: 20 kDa.

**RECOMMENDED SUPPORT REAGENTS**


**SELECT PRODUCT CITATIONS**


**STORAGE**

Store at 4° C, **DO NOT FREEZE**. Non-hazardous. No MSDS required.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.