

Technical Data Sheet

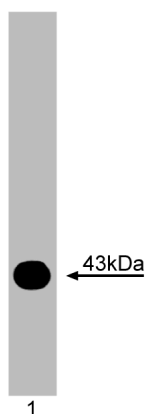
Purified Mouse Anti-Mouse Id2

Product Information

Material Number:	556523
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	B31-1
Immunogen:	Mouse Id2 aa. 230-545 Recombinant Protein
Isotype:	Mouse IgG1, λ
Reactivity:	QC Testing: Mouse
Target MW:	43 kDa
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

Id proteins were originally characterized as inhibitors of DNA binding and cell differentiation. Id1 through 4 contain an evolutionarily conserved helix-loop-helix (HLH) sequence which is critical for protein-protein interaction(s). Most HLH transcription factors contain a basic amino acid region adjacent to the HLH sequence, the bHLH sequence, which is responsible for DNA binding. bHLH transcription factors fall into 2 major groups designated class A factors, e.g., E2.2 and E47, and class B factors, e.g., MyoD, myogenin. In vitro studies demonstrate distinct interaction(s) between Id proteins and bHLH transcription factors. While Id proteins contain an HLH domain, they lack the basic region which is required for DNA binding. Therefore, Id proteins are negative regulators of transcription since complexes which contain them do not bind DNA. Id proteins are variably expressed throughout the cell cycle and are regulated by phosphorylation by cyclin-cdk complexes. Thus, Id proteins play an important role in transcriptional regulation of cell cycle related genes. Overexpression of Id1 can induce apoptosis in serum-starved fibroblasts and is correlated with cell cycle progression promoted by Id family members. For example, Id2 can reverse the cell cycle block provided by retinoblastoma protein (Rb) via direct interaction between Id2 and Rb. Clone B31.1 has been reported to recognize mouse Id2, but does not crossreact with mouse Id1 or mouse Id3.



Western blot analysis for Id2. The mouse anti-mouse Id2 antibody was used at 2 $\mu\text{g}/\text{mL}$ on a Id2-GST recombinant protein recognizing a band at ~ 43 kDa. Mouse Id2 has an approximate molecular weight of ~ 15 kDa and GST at ~ 28 kDa.

Preparation and Storage

Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

Western blot	Routinely Tested
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Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/support/resources/cell_biology/index.jsp

Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
3. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.

References

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