



Datasheet for ABIN967439

anti-E2F1 antibody

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Overview

Quantity:	0.1 mg
Target:	E2F1
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This E2F1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunoprecipitation (IP)

Product Details

Brand:	BD Pharmingen™
Clone:	KH95-E2F
Isotype:	IgG2a
Characteristics:	<ol style="list-style-type: none">1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.2. Please refer to us for technical protocols.3. 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.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target: E2F1

Alternative Name: E2F-1 ([E2F1 Products](#))

Background: The transcription factor E2F was originally characterized as a sequence-specific DNA-binding factor bound to the adenovirus E2A promoter. E2F-binding sites have now been identified in cellular promoters for genes involved in growth regulation, including c-myc, N-myc, Cdc2 and cyclin A. They have also been identified in promoters for genes whose products are required for DNA synthesis and replication, such as DNA polymerase α , thymidine kinase, thymidylate synthase, and dihydrofolate reductase. When bound to DNA, E2F has been found in complexes with key regulators of cell proliferation including the retinoblastoma protein (Rb) and the Rb related proteins, p107 and p130. Like a variety of other transcription factors, E2F binds to DNA as a heterodimer. The protein E2F-1 has E2F-like properties, it mediates E2F-dependent trans-activation and binds to underphosphorylated Rb. E2F dimerizes with DP-1, a protein which also has E2F-like properties. This dimerization leads to increased DNA binding activity and enhanced transcriptional activity. It is thought that E2F-1/DP association forms an active E2F⁺ transcription factor. E2F-1 migrates at a reduced molecular weight of ~60 kDa. Clone KH95/E2F (also referred to as KH95) recognizes an epitope between amino acids 342 and 386 of human E2F-1. It cross reacts with mouse and rat E2F-1. Full length, bacterially expressed, recombinant histidine-tagged human E2F-1 (amino acids 1-437) was purified and used as immunogen. Positive tissue culture supernatants were identified by immunoprecipitation of [³⁵S]methionine-labeled, in vitro synthesized E2F-1 protein.

Molecular Weight: 60 kDa

Pathways: [p53 Signaling](#), [Cell Division Cycle](#), [Mitotic G1-G1/S Phases](#), [DNA Replication](#), [M Phase](#), [Autophagy](#)

Application Details

Application Notes: Applications include western blot analysis (dilute antibody 1-2 μ g/ml). MOLT-4 leukemia cells (ATCC CRL-1582), Daudi lymphoma cells (ATCC CCL-213), and RS4, 11 leukemia cells (ATCC CRL-1873) are suggested as positive controls. Other applications include immunoprecipitation (1-2 μ g/ 1×10^6 cells).

Restrictions: For Research Use only

Handling

Format: Liquid

Handling

Concentration:	0.5 mg/mL
Buffer:	Aqueous buffered solution containing ≤ 0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Store undiluted at 4°C.

Publications

Product cited in:	<p>Saito, Helin, Valentine, Griffith, Willman, Harlow, Look: "Amplification of the E2F1 transcription factor gene in the HEL erythroleukemia cell line." in: Genomics, Vol. 25, Issue 1, pp. 130-8, (1995) (PubMed).</p> <p>Dyson, Dembski, Fattaey, Ngwu, Ewen, Helin: "Analysis of p107-associated proteins: p107 associates with a form of E2F that differs from pRB-associated E2F-1." in: Journal of virology, Vol. 67, Issue 12, pp. 7641-7, (1993) (PubMed).</p> <p>Helin, Wu, Fattaey, Lees, Dynlacht, Ngwu, Harlow: "Heterodimerization of the transcription factors E2F-1 and DP-1 leads to cooperative trans-activation." in: Genes & development, Vol. 7, Issue 10, pp. 1850-61, (1993) (PubMed).</p> <p>Huber, Edwards, Goodhart, Patrick, Huang, Ivey-Hoyle, Barnett, Oliff, Heimbrook: "Transcription factor E2F binds DNA as a heterodimer." in: Proceedings of the National Academy of Sciences of the United States of America, Vol. 90, Issue 8, pp. 3525-9, (1993) (PubMed).</p> <p>Nevins: "E2F: a link between the Rb tumor suppressor protein and viral oncoproteins." in: Science (New York, N.Y.), Vol. 258, Issue 5081, pp. 424-9, (1992) (PubMed).</p>
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Image 1.

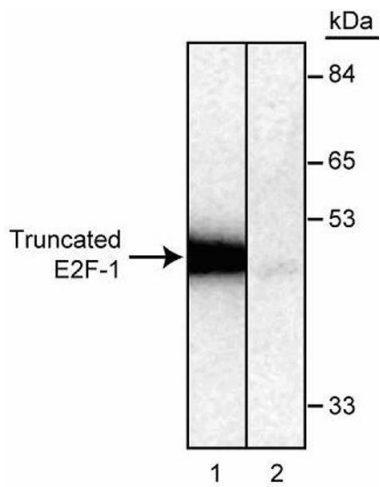
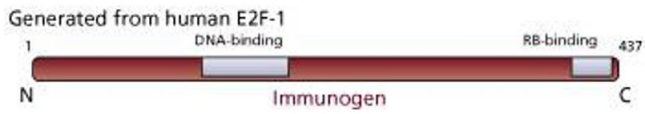
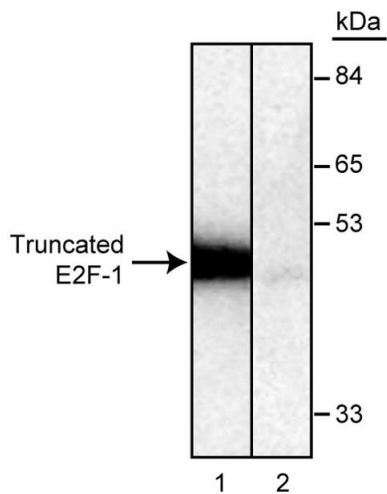


Image 2. Detection of in vitro translated, [³⁵S] methionine-labeled, truncated E2F-1 protein by immunoprecipitation using KH95/E2F (ABIN967439). Proteins were separated by SDS-PAGE and visualized by autoradiography. Lane 1, in vitro translated E2F-1. Lane 2, a negative control not containing E2F-1.



Western Blotting

Image 3.