

PRODUCT INFORMATION



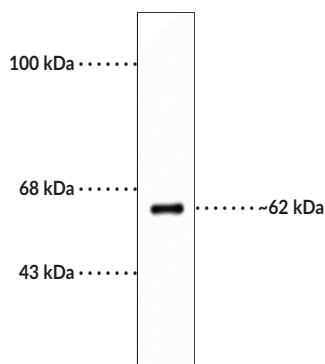
COBRA1 Monoclonal Antibody

Item No. 29256

Overview and Properties

Contents:	This vial contains 100 µl of protein G-purified mouse monoclonal antibody.
Synonyms:	Cofactor of BRCA1, Negative Elongation Factor B, Negative Elongation Factor Complex Member B, Negative Elongation Factor Protein B, NELF-B
Immunogen:	Recombinant human full-length COBRA1 expressed in <i>E. coli</i>
Molecular Weight:	~62 kDa
Species Reactivity:	(+) Human, mouse, and rat; others species not tested
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 0.05% sodium azide
Host:	Mouse
Applications:	Western blot (WB); the recommended starting dilution is 1:1,000. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



WB of neonatal rat brain lysate showing specific immunolabeling of the ~62 kDa COBRA1 protein.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
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Description

Cofactor of BRCA1 (COBRA1), also known as negative elongation factor B (NELFB), is a 580-amino acid nuclear protein encoded by *NELFB* in humans.^{1,2} It induces chromosome decondensation by targeting lac operator-containing chromosome regions and is a component of NELF, a four-subunit complex that suppresses RNA polymerase II elongation *in vitro*. COBRA1 protein levels are enriched in mammary gland luminal epithelium, and it has a role in modulating estrogen-dependent and -independent expression of oncogenes in various breast cancer cell lines.² Ectopic expression or knockdown of *NELFB* suppresses or accelerates breast cancer cell growth, respectively, as well as enhances androgen-mediated transcription.^{2,3} COBRA1 also interacts with the activated protein-1 (AP-1) family members c-Jun and c-Fos, and inhibits AP-1-mediated transcription *in vitro*.⁴ Cayman's COBRA1 Monoclonal Antibody can be used for Western blot (WB) applications. The antibody recognizes COBRA1 at approximately 62 kDa from human, mouse, and rat samples.

References

1. Zhu, J., Song, S., Jiang, Z., *et al.* Characterization of COBRA1 in human breast cancer cell lines using a new polyclonal antibody against COBRA1. *IUBMB Life* **56**(3), 161-166 (2004).
2. Aiyar, S.E., Cho, H., Lee, J., *et al.* Concerted transcriptional regulation by BRCA1 and COBRA1 in breast cancer cells. *Int. J. Biol. Sci.* **3**(7), 486-492 (2007).
3. Sun, J., Blair, A.L., Aiyar, S.E., *et al.* Cofactor of BRCA1 modulates androgen-dependent transcription and alternative splicing. *J. Steroid. Biochem. Mol. Biol.* **107**(3-5), 131-139 (2007).
4. Zhong, H., Zhu, J., Zhang, H., *et al.* COBRA1 inhibits AP-1 transcriptional activity in transfected cells. *Biochem. Biophys. Res. Commun.* **325**(2), 568-573 (2004).

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