Technical Data Sheet

Purified Mouse Anti-Fos

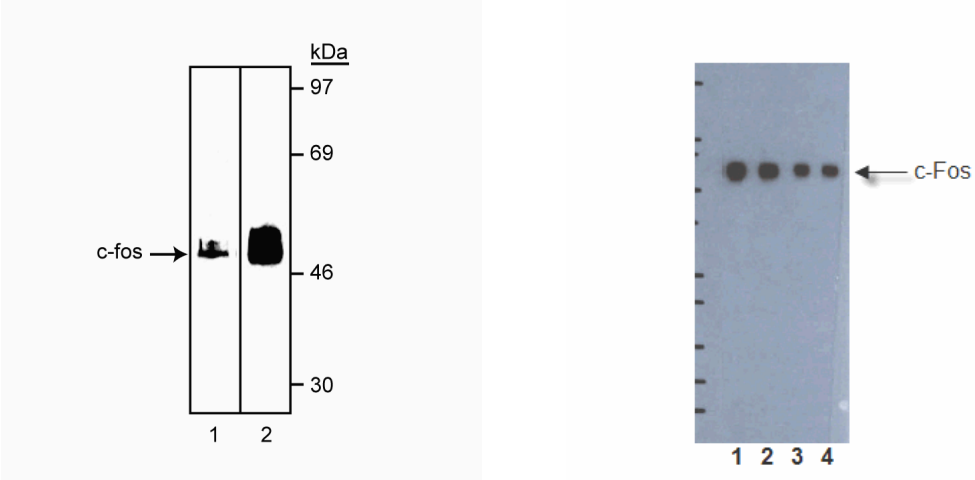
Product Information

Material Number:	**554156**
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	G54-9.9
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Mouse
Target MW:	55-62 kDa
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The cellular fos protein (c-fos) and its viral counterpart v-fos belong, along with fosB, fra-1, and fra-2, to the fos family of transcription factors. They are related to other transcription factor families such as the jun proteins (e.g., CREB, DBP, and C/EBB) with which they share a conserved basic domain (DNA binding motif) and a leucine zipper domain. Whereas jun proteins can form homodimers that act as transcriptional activators, fos proteins only form heterodimers, preferentially with jun proteins. The transcription factor AP-1, which selectively binds to enchancer elements in the promoter region of a wide variety of genes, is a heterodimer of c-fos and c-jun. Deletion analyses and mutagenesis studies have shown that the leucine zipper region from fos and jun is necessary for selective heterodimer formation. c-fos appears primarily as a 55 kDa protein on SDS-polyacrylamide gels; however, it undergoes post-translational modification and other forms have been described including 57 kDa, 60 kDa, and 62 kDa.

Clone G54-9.9 recognizes mouse and human c-fos as single or multiple bands (55-62 kDa). Reactivity to fos proteins of other species has not yet been tested. Mice were immunized with a fos specific fragment (amino acid residues 73-152) of the FBJ-MSV v-fos protein. The region excludes completely the DNA binding and leucine zipper motifs.



Western blot analysis of c-fos.
Left Panel: *Lysate from A431 cells were treated with 50 ng/ml of Epidermal Growth Factor (EGF) to upregulate expression of c-fos. Lane 1, unstimulated cells; lane 2, stimulated cells.*
Right Panel*: Recombinant c-Fos protein (Novus Biologicals Cat. No. H00002353-P01) at 15ug/well was probed using Purified Mouse anti-Fos at 62.5 (lane 1), 32, 16 and 8 ng/lane.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at 4°C.

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Application Notes

Application

Western blot	Routinely Tested
Gel shift	Tested During Development
Immunoprecipitation	Tested During Development

Recommended Assay Procedure:

Clone G54-9.9 may be used for western blot analysis (1-2 µg/ml). Please note that c-fos is an unstable protein; distinct bands are only detected in preparations where c-fos has been induced or overexpressed. G54-9.9 antibodies are quality tested by Western Blot against recombinant c-Fos protein from Novus Biologicals (Cat. No. H00002353-P01). Other applications include immunoprecipitation (2-4 µg/ml of cell lysate) and gel shift assays, which are not routinely tested at BD Biosciences.

Suggested Companion Products

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

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols 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.

References

Angel P, Karin M. The role of Jun, Fos and the AP-1 complex in cell-proliferation and transformation. *Biochim Biophys Acta.* 1991; 1072(2-3):129-157. (Biology)

Curran T, Bravo R, Müller R. Transient induction of c-fos and c-myc in an immediate consequence of growth factor stimulation. *Cancer Surv.* 1987; 4(4):655-681. (Biology)

O'Shea EK, Rutkowski R, Kim PS. Mechanism of specificity in the Fos-Jun oncoprotein heterodimer. *Cell.* 1992; 68(4):699-708. (Biology)

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