Technical Data Sheet

Purified Mouse Anti-ERK1

Product Information

Material Number:	**554100**
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	G262-118
Immunogen:	C-Terminal Region of ERK1
Isotype:	Mouse IgG2b
Reactivity:	QC Testing: Mouse Tested in Development: Human
Target MW:	44 kDa
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

A serine/threonine specific protein kinase, called MAP kinase or more recently ERK1 (extracellular signal regulated kinase) is activated in cells following stimulation with EGF (epidermal growth factor), the PDGF (platelet-derived factor) or insulin. ERK1 has been assayed *in vitro* for phosphotransferase activity using the microtubule-associated protein (MAP) or myelin basic protein. The mechanism by which MAP kinase becomes activated in growth factor treated cells is thought to involve tyrosine and threonine phosphorylation of the kinase itself. The EGF, PDGF and insulin receptors are known to be tyrosine specific protein kinases and studies have shown that MAP kinase is identical to the p42 protein that earlier studies identified as one of the major tyrosine phosphorylated proteins in transformed or growth factor treated cells. While several isoforms of the p42 protein are known, they are thought to be structurally similar. The G262-118 antibody recognizes human and mouse ERK1. It does not cross-react with ERK2. A synthetic peptide from the C-terminal region of ERK1 was used as immunogen.

Western blot analysis of ERK1. *RSVtransformed mouse 3T3 fibroblasts were probed with anti-ERK1 (clone G262-118) at concentrations of 0.2 (lane 1), 0.04 (lane 2), and 0.008 µg/ml (lane 3). ERK1 is detected at ~44 kDa.*

Preparation and Storage

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

Application Notes

Application

Western blot	Routinely Tested
Immunoprecipitation	Not Recommended

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.

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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

Campos-Gonzalez R, Glenney JR Jr. Temperature-dependent tyrosine phosphorylation of microtubule-associated protein kinase in epidermal growth factor-stimulated human fibroblasts. *Cell Regul.* 1993; 2(8):663-673.(Biology)

Rossomando AJ, Payne DM, Weber MJ, Sturgill TW. Evidence that pp42, a major tyrosine kinase target protein, is a mitogen-activated serine/threonine protein kinase. *Proc Natl Acad Sci U S A.* 1989; 86(18):6940-6943.(Biology)