

Datasheet for ABIN1177240

anti-ERK1/2 antibody (pThr202) (Alexa Fluor 647)[Go to Product page](#)**3** Publications

Overview

Quantity:	250 tests
Target:	ERK1/2 (MAPK1/3)
Binding Specificity:	pThr202
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This ERK1/2 antibody is conjugated to Alexa Fluor 647
Application:	Intracellular Staining (ICS)

Product Details

Brand:	BD Phosflow™
Immunogen:	Phosphorylated Rat ERK1 (T202/Y204) Peptide
Clone:	20A
Isotype:	IgG1
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	ERK1/2 (MAPK1/3)
Alternative Name:	ERK1/2 (MAPK1/3 Products)

Target Details

Background:	The members of the Mitogen-Activated Protein Kinase (MAPK) family are components of a key signal transduction cascade that links events at the cell surface to responses in the nucleus. The signaling cascade is found in species as varied as yeast and humans, with many of the proteins being well conserved. In mammals the most widely studied members of the cascade are the Extracellular signal-Regulated Kinases, ERK1 (p44 MAPK) and ERK2 (p42 MAPK). ERK1 and ERK2 share 85% homology and are activated by extracellular signals such as growth factors, hormones, and phorbol esters. Activation occurs through a series of phosphorylations by kinases activating other kinases and eventually leading to phosphorylation of the ERKs. Growth factor stimulation leads to activation of Ras and Raf, leading to phosphorylation of MEK1 (MAPK/ERK kinase) which, in turn, activates the ERKs via dual phosphorylation. Once activated, the ERKs phosphorylate other cytoplasmic signalling molecules, cell-surface receptors, microtubule-associated proteins, and transcription factors in the nucleus. Thus, the active ERK has myriad downstream effectors that implicate it in the control of cell proliferation and differentiation, as well as regulation of the cytoskeleton. Furthermore, studies have shown that elevated ERK activity is associated with some cancers. The 20A monoclonal antibody recognizes the phosphorylated threonine 202 and tyrosine 204 (pT202/pY204) of human ERK1 and pT184/pY186 of human ERK2. The orthologous phosphorylation sites in murine ERK1 and ERK2 are T203/Y205 and T183/Y185. Synonyms: p44/42 MAPK, Extracellular signal-Regulated Kinase 1/2 (pT202/Y204)
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Application Details

Sample Volume:	5 µL
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Aqueous buffered solution containing BSA and ≤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 and protected from prolonged exposure to light. Do not freeze. The antibody was conjugated to Alexa Fluor® 647 under optimum conditions, and unreacted Alexa

Fluor® 647 was removed.

Publications

- Product cited in:
- Sivaraman, Wang, Nuovo, Malbon: "Hyperexpression of mitogen-activated protein kinase in human breast cancer." in: **The Journal of clinical investigation**, Vol. 99, Issue 7, pp. 1478-83, (1997) ([PubMed](#)).
- Clark, Hynes: "Ras activation is necessary for integrin-mediated activation of extracellular signal-regulated kinase 2 and cytosolic phospholipase A2 but not for cytoskeletal organization." in: **The Journal of biological chemistry**, Vol. 271, Issue 25, pp. 14814-8, (1996) ([PubMed](#)).
- Boulton, Cobb: "Identification of multiple extracellular signal-regulated kinases (ERKs) with antipeptide antibodies." in: **Cell regulation**, Vol. 2, Issue 5, pp. 357-71, (1991) ([PubMed](#)).