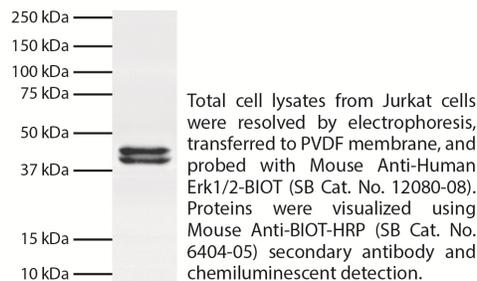




Mouse Anti-Human ERK1/2

Cat. No.	Format	Size
12080-01	Purified (UNLB)	0.5 mg
12080-05	Horseradish Peroxidase (HRP)	1.0 mL
12080-08	Biotin (BIOT)	0.5 mg



Overview

Clone	SB46b
Isotype	Mouse (BALB/c) IgG _{2a} K
Immunogen	Recombinant human Erk1 and Erk2
Specificity	Human Erk1 and human Erk2
Alternate Name(s)	MAPK, p44/42

Description

Erk1 and Erk2 are closely related mitogen activated protein (MAP) kinases which are activated by many growth factors, mitogens, and differentiation-promoting agents via a protein kinase cascade. Erk1 and Erk2 are ubiquitous and abundant although their relative abundance in specific tissues may vary. The two kinases are nearly 85% identical and have higher identity in the core regions involved in substrate binding. Erk1 and Erk2 are activated approximately 1000-fold by phosphorylation within a Thr-Glu-Tyr motif in the activation loop on both threonine and tyrosine residues by Mek1 and Mek2. Both sites must be phosphorylated for maximum activity. These kinases in turn phosphorylate a variety of different substrates.

Erk1 and Erk2 are found in the cytoplasm and are translocated to the nucleus upon activation. They target membrane proteins, cytosolic proteins, such as downstream kinases, and cytoskeletal proteins and nuclear proteins, such as transcription factors. Many of these substrates are important regulatory proteins. Erk1 and Erk2 represent proximal kinases in the classical kinase pathway which links growth and differentiation signals at the cell surface (through tyrosine kinases) with transcription in the nucleus.

The SB46b monoclonal antibody precipitates ~42 kDa and ~44 kDa bands, corresponding to Erk1 and Erk2, respectively.

Applications

WB – Quality tested
ELISA ¹

Working Dilutions

Immunoblotting	Purified (UNLB) antibody	≤ 2 µg/mL
	HRP conjugate	1:1,000 – 1:3,000
	BIOT conjugate	1:500 – 1:1,000
ELISA	Purified (UNLB) antibody	≤ 1 µg/mL
Other Applications	Since applications vary, you should determine the optimum working dilution for the product that is appropriate for your specific need.	

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Handling and Storage

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of borate buffered saline, pH 8.2. *No preservatives or amine-containing buffer salts added.* Store at 2-8°C.
- The horseradish peroxidase (HRP) conjugate is supplied as 1.0 mL in a stock solution of 50% glycerol/50% PBS, pH 7.4. No preservative added. Store at 2-8°C or long-term at -20°C.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃. Store at 2-8°C.
- Reagents are stable for the period shown on the label if stored as directed.

Warning

Some reagents contain sodium azide. Please refer to product specific SDS.

References

1. SouthernBiotech unpublished data (ELISA)