

# Anti-ERK2 Antibody [5-D2-R]

## HA601202



<b>Product Type:</b>	Recombinant Mouse monoclonal IgG1, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB
<b>Molecular Wt:</b>	Predicted band size: 41 kDa
<b>Clone number:</b>	5-D2-R

**Description:** Serine/threonine kinase which acts as an essential component of the MAP kinase signal transduction pathway. MAPK1/ERK2 and MAPK3/ERK1 are the 2 MAPKs which play an important role in the MAPK/ERK cascade. They participate also in a signaling cascade initiated by activated KIT and KITLG/SCF. Depending on the cellular context, the MAPK/ERK cascade mediates diverse biological functions such as cell growth, adhesion, survival and differentiation through the regulation of transcription, translation, cytoskeletal rearrangements. The MAPK/ERK cascade plays also a role in initiation and regulation of meiosis, mitosis, and postmitotic functions in differentiated cells by phosphorylating a number of transcription factors. Moreover, the MAPK/ERK cascade is also involved in the regulation of the endosomal dynamics, including lysosome processing and endosome cycling through the perinuclear recycling compartment (PNRC); as well as in the fragmentation of the Golgi apparatus during mitosis.

**Immunogen:** Recombinant protein within human ERK2 aa aa 200-359.

**Positive control:** HeLa cell lysate, Jurkat cell lysate, A549 cell lysate, A431 cell lysate, HepG2 cell lysate, HEK-293 cell lysate, NIH/3T3 cell lysate, RAW264.7 cell lysate, C6 cell lysate, PC-12 cell lysate, human brain tissue lysate, mouse brain tissue lysate, rat brain tissue lysate.

**Subcellular location:** Cytoplasm, cytoskeleton, spindle, Nucleus, microtubule organizing center, centrosome, Membrane, caveola, Cell junction, focal adhesion.

**Database links:** SwissProt: P28482 Human | P63085 Mouse | P63086 Rat

**Recommended Dilutions:**

**WB** 1:1,000

**Storage Buffer:** PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Store at +4°C after thawing. Aliquot store at -20°C. Avoid repeated freeze / thaw cycles.

**Purity:** Protein A affinity purified.

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Orders:0086-571-88062880

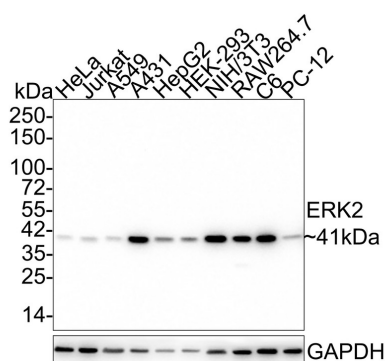
Technical:0086-571-89986345

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## Images

**Fig1:** Western blot analysis of ERK2 on different lysates with Mouse anti-ERK2 antibody (HA601202) at 1/1,000 dilution.



Lane 1: HeLa cell lysate (20 µg/Lane)  
 Lane 2: Jurkat cell lysate (20 µg/Lane)  
 Lane 3: A549 cell lysate (20 µg/Lane)  
 Lane 4: A431 cell lysate (20 µg/Lane)  
 Lane 5: HepG2 cell lysate (20 µg/Lane)  
 Lane 6: HEK-293 cell lysate (20 µg/Lane)  
 Lane 7: NIH/3T3 cell lysate (20 µg/Lane)  
 Lane 8: RAW264.7 cell lysate (20 µg/Lane)  
 Lane 9: C6 cell lysate (20 µg/Lane)  
 Lane 10: PC-12 cell lysate (20 µg/Lane)

Predicted band size: 41 kDa

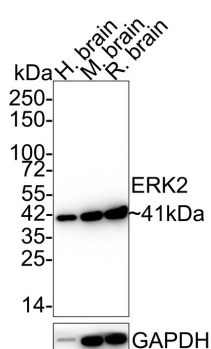
Observed band size: 41 kDa

Exposure time: 3 minutes;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDm/TBST for 1 hour at room temperature. The primary antibody (HA601202) at 1/1,000 dilution was used in 5% NFDm/TBST at 4°C overnight. Alpaca Anti-Mouse IgG - HRP for IP Nano-Secondary Antibody (NBI02H) at 1/5,000 dilution was used for 1 hour at room temperature.

**Fig2:** Western blot analysis of ERK2 on different lysates with Mouse anti-ERK2 antibody (HA601202) at 1/1,000 dilution.



Lane 1: Human brain tissue lysate (40 µg/Lane)  
 Lane 2: Mouse brain tissue lysate (40 µg/Lane)  
 Lane 3: Rat brain tissue lysate (40 µg/Lane)

Predicted band size: 41 kDa

Observed band size: 41 kDa

Exposure time: 1 minute 2 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDm/TBST for 1 hour at room temperature. The primary antibody (HA601202) at 1/1,000 dilution was used in 5% NFDm/TBST at 4°C overnight. Alpaca Anti-Mouse IgG - HRP for IP Nano-Secondary Antibody (NBI02H) at 1/5,000 dilution was used for 1 hour at room temperature.

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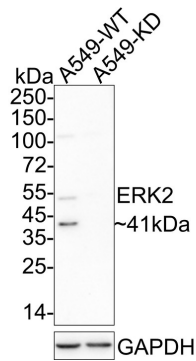
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**Fig3:** Western blot analysis of ERK2 on different lysates with Mouse anti-ERK2 antibody (HA601202) at 1/2,000 dilution.

Lane 1: A549-si NT cell lysate (10 µg/Lane)

Lane 2: A549-si ERK2 cell lysate (10 µg/Lane)



Predicted band size: 41 kDa

Observed band size: 41 kDa

Exposure time: 1 minute; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA601202) at 1/2,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

### Background References

1. Wortzel I et al. The ERK cascade: distinct functions within various subcellular organelles. *Genes Cancer* 2:195-209 (2011).
2. Ohori M et al. Role of a cysteine residue in the active site of ERK and the MAPKK family. *Biochem Biophys Res Commun* 353:633-637 (2007).
3. Ohori M et al. Identification of a selective ERK inhibitor and structural determination of the inhibitor-ERK2 complex. *Biochem Biophys Res Commun* 336:357-363 (2005).

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