*Order: 0571-88177686*
*Fax: 0571-88177681*
*Support: support@biolynx.cn*

Rev.: 2018/12/5

# ERK1
# Recombinant Rabbit Monoclonal Antibody
# Product Datasheet

**Catalog#** BX00067
**Clone#** RR671

**Predicted Molecular Wt:** 43kDa
**Species Cross-reactivity:** Human Mouse Rat
*Species cross-reactivity determined by WB*
**Applications:** WB IHC-P IF/ICC FC IP

**Purity:** ProA affinity purified IgG
**Form:** Liquid
**Swissprot ID:** P27361

**Background:**
ERK1 and ERK2 belongs to the protein kinase superfamily. It is involved in both the initiation and regulation of meiosis, mitosis, and postmitotic functions in differentiated cells by phosphorylating a number of transcription factors such as ELK-1. ERK1/2 catalized the reaction: ATP + a protein = ADP + a phosphoprotein. It is activated by tyrosine phosphorylation in response to insulin and NGF.

**Immunogen:**
A synthetic peptide corresponding to the N-term of ERK1 was used as an immunogen.

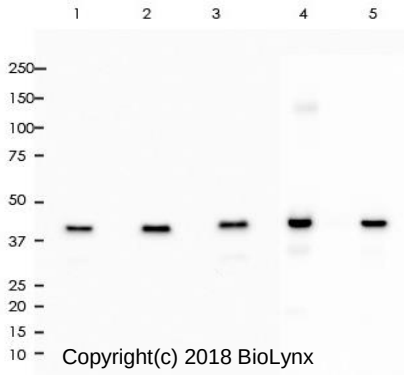
**Storage Buffer:**
PBS 59%, Sodium azide 0.01%, Glycerol 40%, BSA 0.05%.
**Storage conditions:**
-20°C.
**Storage instructions:**
Shipped on blue ice. Upon delivery, aliquot, and store at -20°C. Avoid freeze / thaw cycles.
**Recommended Dilutions:**

| | |
|---|---|
| WB: | 1:2,000 - 1:10,000 |
| IHC-P: | 1:100 - 1:200 |
| IF/ICC: | 1:50 - 1:200 |
| FC: | 1:200 - 1:1,000 |
| IP: | 1:50 |

**Background References:**

1. Tor YS et al. PLoS One 10:e0127441 (2015).

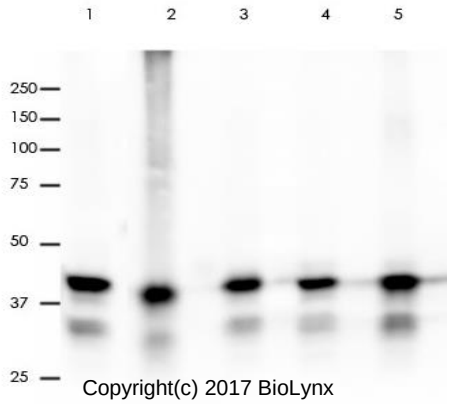
2. Zhu Z et al. J Exp Clin Cancer Res 34:95 (2015).




All lanes: Anti-ERK1 antibody at 1:2,000 dilution
Predicted MW: 43 kDa
Observed MW: 44 kDa

Lane 1: Hela
Lane 2: 293T
Lane 3: Raw264.7
Lane 4: A431
Lane 5: A375

Lysate at 10 µg per lane
2nd Ab:
GAR HRP(H+L) 1:5,000
Exposure: 50s




All lanes: Anti-ERK1 antibody at 1:2,000 dilution
Predicted MW: 43 kDa
Observed MW: 44 kDa

Lane 1: Mu Brain
Lane 2: Mu Kidney
Lane 3: Mu Liver
Lane 4: Rat Brain
Lane 5: Rat Kidney

Lysate at 10 µg per lane
2nd Ab:
GAR HRP(H+L) 1:5,000
Exposure: 20s

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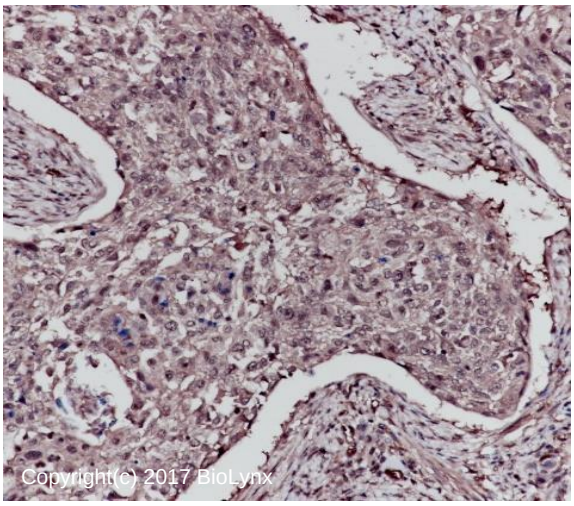
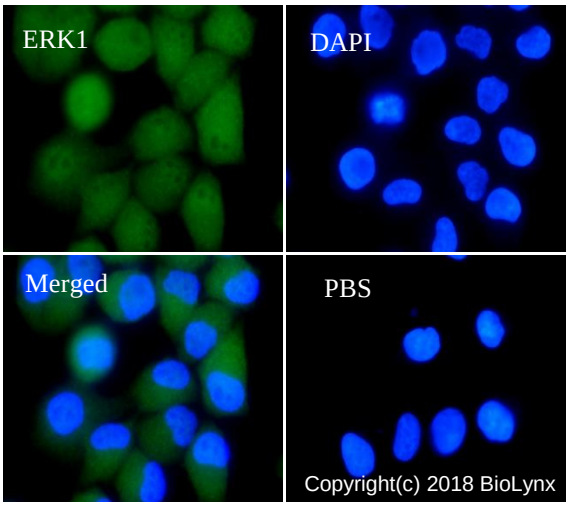
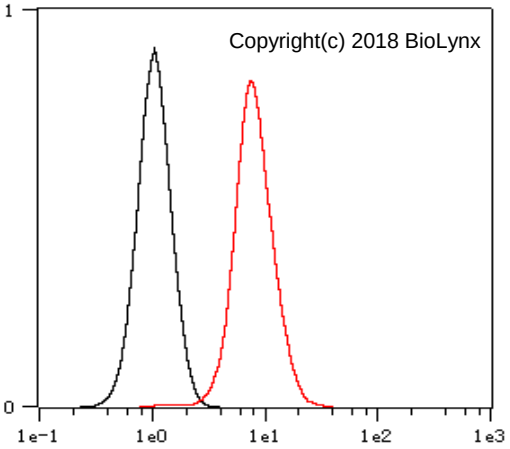


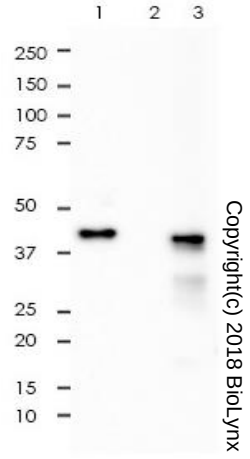

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis Cervix cancer tissue labelling ERK1 with RR671 at 1:200. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9.0.




RR671 staining ERK1 in Hela cells by IF/ICC (immunofluorescence/immunocytochemistry). Cells were fixed with paraformaldehyde, permeabilized with 0.1% Triton X-100 and blocked with 10% goat serum for half an hour at room temperature. Samples were incubated with primary antibody (1:50) at 4°C. An Alexa Fluor® 488-conjugated Goat Anti-Rabbit IgG polyclonal was used as the secondary antibody (1:500). DAPI (blue) was used as the nuclear counter stain.
Control: PBS and secondary antibody, An Alexa Fluor® 488-conjugated Goat Anti-Rabbit IgG (1:500).




Overlay histogram showing Hela cells stained with RR671 (Red). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% TritonX-100 for 15 min. The cells were then incubated in the antibody (RR671, 1:1,000 dilution) in 1x PBS/1% BSA for 30 min at room temperature. The secondary antibody used was a Goat Anti-Rabbit Alexa Fluor® 488 (IgG H+L) at 1:2,000 dilution for 20 min at room temperature. Unlabelled sample (Black) was used as a control.




ERK1 was immunoprecipitated from 0.4mg of A375 whole cell lysate with RR671 at 1:50 dilution.
2nd Ab:
GAR HRP for IP 1:500

Lane 1: RR671 IP in A375 whole cell lysate
Lane 2: PBS instead of RR671 in A375 whole cell lysate
Lane 3: A375 whole cell lysate, 10 µg (input)

Exposure: 120s

**Product QC'd by:**

**For research use only. Not for use in diagnostic or therapeutic applications.**