

## ERK2

### Recombinant Rabbit Monoclonal Antibody

### Product Datasheet

Catalog# BX00060

Clone# RR664

**Predicted Molecular Wt:** 41kDa

**Purity:** ProA affinity purified IgG

**Species Cross-reactivity:** Human Mouse Rat

**Form:** Liquid

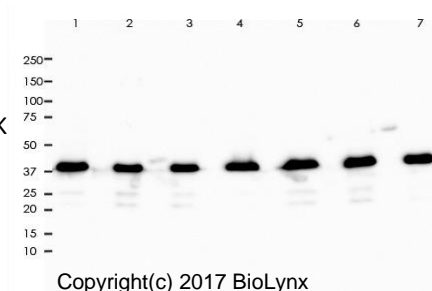
*Species cross-reactivity determined by WB*

**Swissprot ID:** P28482

**Applications:** WB IHC-P IP FC ICC

#### Background:

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.



All lanes: Anti-ERK2 antibody at 1:1,000 dilution  
Predicted MW: 41 kDa  
Observed MW: 42 kDa

Lane 1: JurKat  
Lane 2: Hela  
Lane 3: 293  
Lane 4: A431  
Lane 5: Raw264.7  
Lane 6: 3T3  
Lane 7: PC-12

Lysate at 10 µg per lane  
2nd Ab:

#### Immunogen:

A synthetic peptide corresponding to the C-term of ERK2 was used as an immunogen.

#### Storage Buffer:

PBS 59%, Sodium azide 0.01%, Glycerol 40%, BSA 0.05%.

#### Storage conditions:

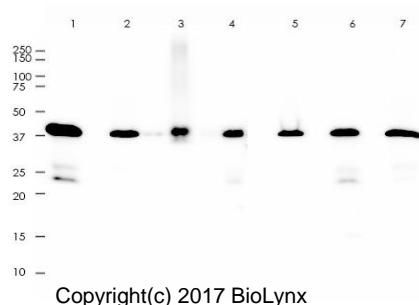
-20°C

#### Storage instructions:

Shipped on blue ice. Upon delivery, aliquot, and store at -20°C. Avoid freeze / thaw cycles.

#### Recommended Dilutions:

WB: 1:1,000 - 1:2,000  
IHC-P: 1:800 - 1:1,600  
IP: 1:20  
FC: 1:200 - 1:1,000  
ICC: 1:50 - 1:200



All lanes: Anti-ERK2 antibody at 1:1,000 dilution  
Predicted MW: 41 kDa  
Observed MW: 42 kDa

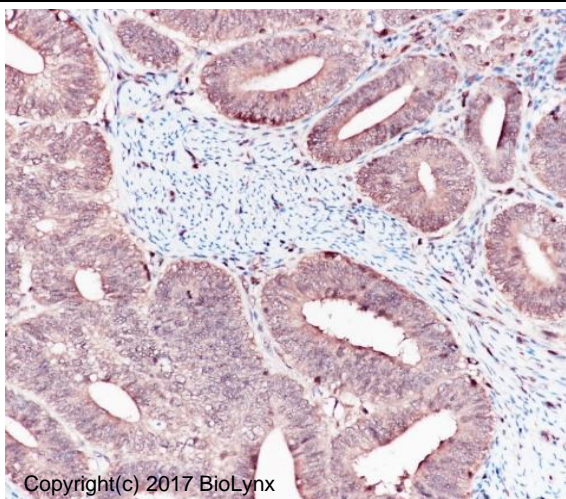
Lane 1: Mu Brain  
Lane 2: Mu Heart  
Lane 3: Mu Kidney  
Lane 4: Mu Liver  
Lane 5: Rat Heart  
Lane 6: Rat Kidney  
Lane 7: Rat Liver

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

#### Background References:

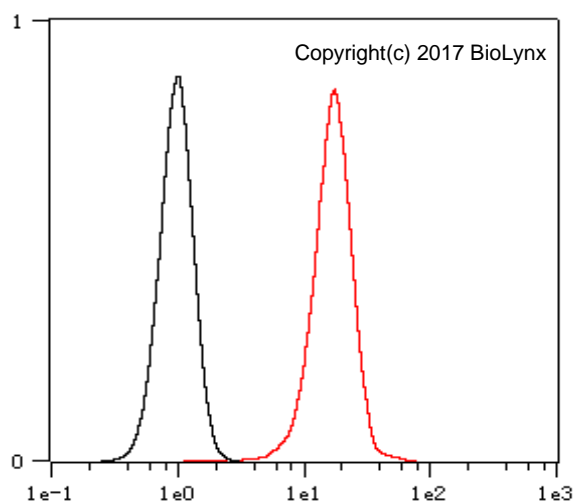
1. Li R et al. Oncotarget 8:19354-19364 (2017).

2. He L et al. Exp Ther Med 13:1203-1208 (2017).



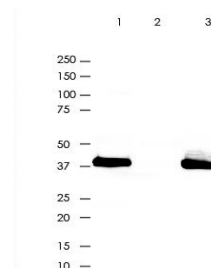
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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of endometrium cancer tissue labelling ERK2 with RR664 at 1:1,600. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9.0.



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Overlay histogram showing Hela cells stained with RR664 (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 (RR664, 1:200 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.



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Anti-ERK2 was immunoprecipitated from 0.4mg of A431 lysate with RR664 at 1:20 dilution.

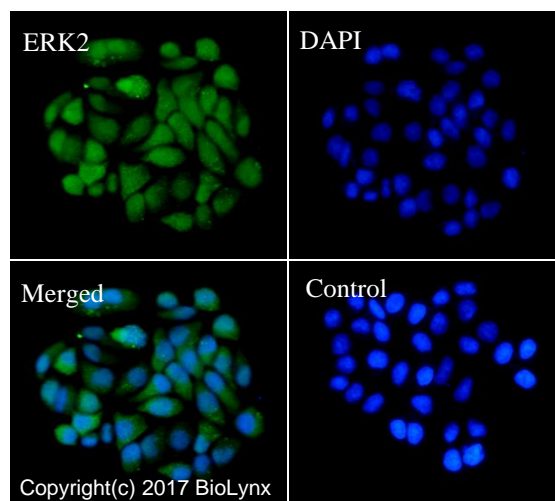
2nd Ab:

GAR HRP for IP 1:10,000

Lane 1: RR664 IP in A431 whole cell lysate

Lane 2: PBS instead of RR664 in A431 whole cell lysate Lane3: A431 whole cell lysate, 10 µg(input)

Exposure: 120s



RR664 staining ERK2 in Hela cells by ICC/IF (Immunocytochemistry/immunofluorescence). 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).

Product QC'd by:



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