

## Erk 1/2 (pThr188) pAb

### Quality Control Certificate of Analysis

Catalogue No.: A010-40AP

Unit Size: 50 µg / 50 µl

Lot No: 1012-02

**Background:** The extracellular-regulated kinases - Erk1 and Erk2 are widely expressed protein kinases which are activated by mitogen-activated protein kinase 1 and 2 (MEK1/2) via phosphorylation of the TEY motif in the activation loop (Lorenz et al., 2009). Erk1/2 may become autophosphorylated at position Thr-188 and this is a marker of cardiac hypertrophy. Antibody A010-40AP recognises Erk2 and Erk2 phosphorylated at Thr-188.

**Description:** Lyophilised **Rabbit** polyclonal protein A affinity purified antibody (A010-40AP)

**Immunogen:** HPLC purified peptide L<sup>TEY</sup>VAT(PO<sub>3</sub>H<sub>2</sub>)RWYR-NH<sub>2</sub> conjugated to KLH using glutaraldehyde

**Antibody Isotype:** IgG.

**Antibody Purity:** Protein A Affinity Purified

**Specificity:** Epitope peptide is identical in all isoforms of ERK1 (MAPK3) and ERK2 (MAPK1)

**Species Cross Reactivity:** Peptide aligns with sequence from both Mouse and Human. Threonine 188 is number in relation to the mouse sequence of ERK2.

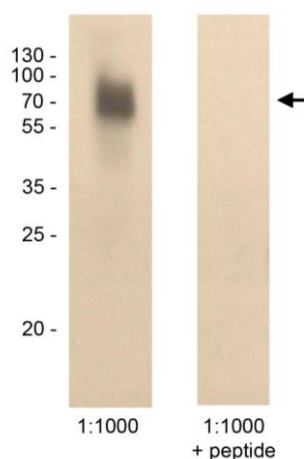
**Vial Constituents:** Lyophilised A010-40AP Rabbit antibody (50 µg) in 0.1M Tris-citrate pH 7.4 with 20%v/v stabiliser solution

**Storage Instructions:** Lyophilised antibody is stable at 4 °C when stored with desiccant. Reconstitute lyophilised powder in 50 µl of 18 MΩ H<sub>2</sub>O for a 1mg/ml solution with stable buffering conditions. Aliquot and store frozen at -80 °C for 1 year. Avoid freeze - thaw cycles.

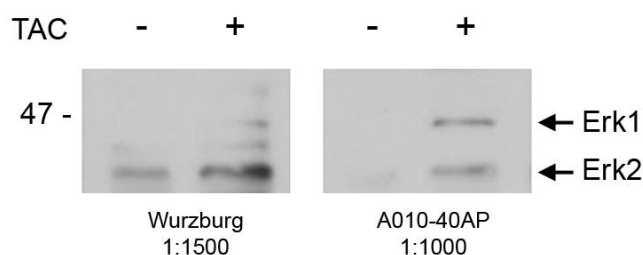
**Tested Applications:** WB 1:1000

PO<sub>3</sub>H<sub>2</sub> Specific

	180											190		
Epitope	-	-	L	T	E	Y	V	A	T	R	W	Y	R	-
M-ERK1	G	F	L	T	E	Y	V	A	T	R	W	Y	R	A
M-ERK2	G	F	L	T	E	Y	V	A	T	R	W	Y	R	A
H-ERK1.1	G	F	L	T	E	Y	V	A	T	R	W	Y	R	A
H-ERK1.2	G	F	L	T	E	Y	V	A	T	R	W	Y	R	A
H-ERK1.3	G	F	L	T	E	Y	V	A	T	R	W	Y	R	A
H-ERK2	G	F	L	T	E	Y	V	A	T	R	W	Y	R	A



WB using Erk1/2 PT188 Ab against 0.25 µg of BSA conjugated phospho-peptide. Ab binding is blocked by epitope phosphopeptide (1µM: P010-40) in right hand panel



WB comparing Erk1/2 PT188 antibodies Würzburg (Lorenz et al., 2008) and Badrilla Against Heart lysates from mice +/- Transverse Aorta Constricted (TAC)

**Related Products:** P010-40

### Background References:

- Lorenz, K., Schmitt, J. P., Schmitteckert, E. M., and Lohse, M. J. (2009) A new type of ERK1/2 autophosphorylation causes cardiac hypertrophy. *Nat Med* **15**, 75-83
- Vidal, M., Wieland, T., Lohse, M. J., and Lorenz, K. (2012) β-Adrenergic receptor stimulation causes cardiac hypertrophy via a Gβγ/Erk-dependent pathway. *Cardiovasc Res* **96**, 255-264