



POLYCLONAL ANTIBODY

For research use only. Not for clinical diagnosis.

Catalog No. COP-080049

p94/calpain 3

BACKGROUND

Calpain3 is about 94 kDa, but the wild-type protein is very unstable when expressed in COS7 cells, so that the 94-kDa full-length band can be hardly detected. Therefore, inactive calpain3:C129S mutant, in which one of active site residues (Cys129) is substituted by Ser to lose proteolytic activity without conformational change, is used for positive control, showing the 94-kDa full-length calpain3 band (arrow head).

Note that unpurified antibody (COP-080048) showed non-specific band (*), which disappeared when detected by purified antibody (COP-080049). Non-specific signals detected by COP-080048 is much stronger when skeletal muscle extract is used instead of COS7 extract, whereas COP-080049 hardly detects them.

Product type	Primary antibodies
Host	Goat
Source	Affinity-purified by a part of antigen peptide (NH ₂ -VKKKKKNKPIIFVC-COOH)
Form	Liquid 0.1% NaN ₃ as a preservative.
Volume	50 µl
Concentration	
Specificity	
Antigen	synthetic peptide: NH ₂ -NTISV DRPVK KKKNK PIIFC-COOH
Isotype	IgG

Application notes WB, IP

Recommended use

Recommended dilutions

Western blotting: 1/500 ~ 1/1,000 Predicted molecular weight: 94 kDa (55kDa+32kDa)

Optimal dilutions/concentrations should be determined by the end user.

Staining Pattern

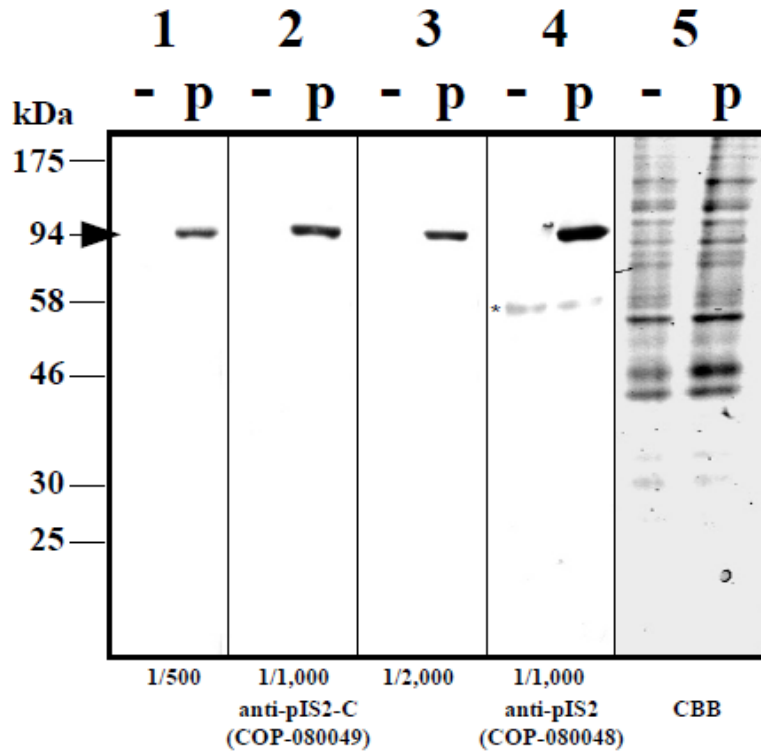
Cross reactivity Human, Mouse, Rat

Storage Store below -20°C (below -80°C for prolonged storage).

Aliquot to avoid cycles of freeze/thaw.

References

- 1) Ojima, K., Ono, Y., Doi, N., Yoshioka, K., Kawabata, Y., Labeit, S., Sorimachi, H. (2007) Myogenic stage, sarcomere length, and protease activity modulate localization of muscle-specific calpain. J Biol Chem., 282, 14493-14504. Fig.1H (anti-pIS2C)



-: negative control, total extract of COS7 cells (1 µg/lane) trasfected with empty expression vector (pSRD)
p: positive control, total extract of COS7 cells (1 µg/lane) trasfected with a calpain3:C129S inactive mutant expression vector in pSRD
*: non-specific signal
1~3: COP-080049, 1/500 dil, 1/1,000 dil, 1/2,000 dil, respectively
4: COP-080048, 1/1,000 dil
5: CBB staining of the above samples

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Manufactured by Operon Biotechnologies, K.K



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Inspiration for Life Science

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