

p-MEF-2 (Ser 408): sc-101731

BACKGROUND

Myogenic helix-loop-helix (HLH) transcription factors of the myogenin/MyoD class have been studied in detail over the past few years. Muscle gene induction by these proteins depends upon sequence-specific DNA binding at the E box DNA element present in many muscle enhancers and promoters. MEF-2 is a muscle-specific DNA binding protein that recognizes an A+T-rich sequence [CTA (A/T)₄ TAG] localized in the control regions of numerous muscle-specific genes. MEF-2 belongs to the MADS (MCM1, Agamous, Deficiens and serum-response factor) box family of transcription factors. The MEF-2 proteins comprise several alternatively spliced isoforms from the MEF-2 gene and a related factor encoded by the related gene xMEF2. MEF-2 expression is ubiquitous but preferential in skeletal and cardiac muscle cells. The Serine 59 residue, located between the MADS and MEF-2 domains of MEF-2C, is phosphorylated *in vivo* and can be phosphorylated *in vitro* by casein kinase-II (CKII). Phosphorylation of this site enhances the DNA binding and transcriptional activity of MEF-2C by increasing its DNA binding activity 5-fold.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MEF2A (human) mapping to 15q26.3; Mef2a (mouse) mapping to 7 C.

SOURCE

p-MEF-2 (Ser 408) is a rabbit polyclonal antibody raised against a short amino acid sequence containing phosphorylated Ser 408 of MEF-2 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

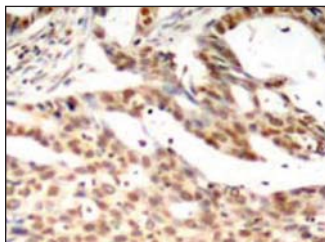
APPLICATIONS

p-MEF-2 (Ser 408) is recommended for detection of Ser 408 phosphorylated MEF-2 of human origin and correspondingly phosphorylated Ser 406 of mouse and rat origin by immunofluorescence and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 2) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



p-MEF-2 (Ser 408): sc-101731. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue showing nuclear localization.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.