**BACKGROUND**

Enigma, also known as PDLIM7 (PDZ and LIM domain 7) or LMP1 (LIM mineralization protein), is a 457 amino acid protein that localizes to both the cytoplasm and the cytoskeleton. Expressed ubiquitously with highest expression in skeletal muscle, spleen, lung and fetal liver, Enigma is thought to function as a scaffold on which protein assembly can occur. Enigma contains three LIM zinc-binding domains and one PDZ domain through which it may also act as an adaptor, linking various proteins to actin filaments found in skeletal muscle and non-muscle tissues. Additionally, Enigma is directly involved in the two mechanisms of bone formation, namely direct bone formation (embryonic flat bones mandible and cranium) and endochondral bone formation (embryonic long bone development), and may play a role in bone fracture repair. Six isoforms of Enigma exist due to alternative splicing events.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: PDLIM7 (human) mapping to 5q35.3; Pdlim7 (mouse) mapping to 13 B1.

**SOURCE**

Enigma (H-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 99-118 within an internal region of Enigma of human origin.

**RESEARCH USE**

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

**PRODUCT**

Each vial contains 200 µg IgG₃ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-390330 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

**APPLICATIONS**

Enigma (H-7) is recommended for detection of Enigma of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein [1 ml of cell lysate]), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).


Molecular Weight of Enigma: 55 kDa.

Positive Controls: Enigma (h): 293T Lysate: sc-170164.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:
2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

**DATA**

**STORAGE**

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