

# ZBPB1 (C-15): sc-163559

## BACKGROUND

ZBPB1 (zona pellucida-binding protein 1) is a 351 amino acid gene product belonging to the zona pellucida-binding protein Sp38 family. ZBPB1 is a secreted protein believed to be involved in gamete interaction during fertilization. ZBPB1 is found on Chromosome 7 which is about 158 million bases long, encodes over 1,000 genes and makes up about 5% of the human genome. Chromosome 7 has been linked to osteogenesis imperfecta, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome. The deletion of a portion of the q arm of chromosome 7 is associated with Williams-Beuren syndrome, a condition characterized by mild mental retardation, an unusual comfourt and friendliness with strangers and an elfin appearance. Deletions of portions of the q arm of chromosome 7 are also seen in a number of myeloid disorders including cases of acute myelogenous leukemia and myelodysplasia.

## REFERENCES

1. Yu, Y., et al. 2006. The extracellular protein coat of the inner acrosomal membrane is involved in zona pellucida binding and penetration during fertilization: characterization of its most prominent polypeptide (IAM38). *Dev. Biol.* 290: 32-43.
2. Lin, Y.N., et al. 2007. Loss of zona pellucida binding proteins in the acrosomal matrix disrupts acrosome biogenesis and sperm morphogenesis. *Mol. Cell. Biol.* 27: 6794-6805.
3. Yu, Y., et al. 2009. The origin and assembly of a zona pellucida binding protein, IAM38, during spermiogenesis. *Microsc. Res. Tech.* 72: 558-565.
4. Song, C., et al. 2010. Molecular cloning of pig ZBPB2 and mRNA expression of ZBPB1 and ZBPB2 in reproductive tracts of boars. *Anim. Reprod. Sci.* 122: 229-235.
5. Ma ásková-Postlerová, P., et al. 2011. Biochemical and binding characteristics of boar epididymal fluid proteins. *J. Chromatogr. B Analyt. Technol. Biomed. Life Sci.* 879: 100-106.

## CHROMOSOMAL LOCATION

Genetic locus: ZBPB (human) mapping to 7p12.2; Zpbp (mouse) mapping to 11 A1.

## SOURCE

ZBPB1 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ZBPB1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-163559 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

ZBPB1 (C-15) is recommended for detection of ZBPB1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with ZBPB2.

ZBPB1 (C-15) is also recommended for detection of ZBPB1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ZBPB1 siRNA (h): sc-89372, ZBPB1 siRNA (m): sc-155826, ZBPB1 shRNA Plasmid (h): sc-89372-SH, ZBPB1 shRNA Plasmid (m): sc-155826-SH, ZBPB1 shRNA (h) Lentiviral Particles: sc-89372-V and ZBPB1 shRNA (m) Lentiviral Particles: sc-155826-V.

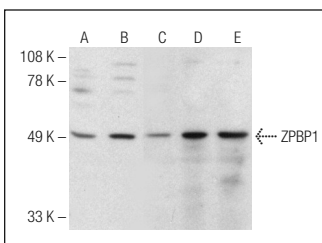
Molecular Weight of ZBPB1: 41 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136, HeLa whole cell lysate: sc-2200 or mouse testis extract: sc-2405.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



ZBPB1 (C-15): sc-163559. Western blot analysis of ZBPB1 expression in HEK293 (A), HeLa (B) and NTERA-2 cl.D1 (C) whole cell lysates and human testis (D) and mouse testis (E) tissue extracts.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.