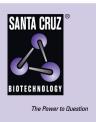
# SANTA CRUZ BIOTECHNOLOGY, INC.

# Keratin 76 (F-12): sc-168295



#### BACKGROUND

The Keratin multigene family is made of "soft" epithelial cytokeratins and "hard" hair Keratins. While the epithelial cytokeratins are involved in the layering and formation of epithelia, the hair Keratins are responsible for creating nails and hair. There are two types of Keratins: the acidic class I Keratin proteins and the basic/neutral class II Keratin proteins. Keratin 76, also known as Krt76, KRT2B, or Type-II Keratin Kb9, is a 594 amino acid protein that is a member of the basic/neutral class II Keratins. The gene encoding Keratin 76 is thought to contribute to terminal cornification and maps to both mouse chromosome 15 F3 and human chromosome 12q13.13. Like Keratin 76, many type II human Keratins are encoded by genes that map to chromosome 12 which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis and Kniest dysplasia.

# REFERENCES

- Collin, C., et al. 1992. Suprabasal marker proteins distinguishing keratinizing squamous epithelia: cytokeratin 2 polypeptides of oral masticatory epithelium and epidermis are different. Differentiation 51: 137-148.
- 2. Delgado Carrasco, J., et al. 2001. Achondrogenesis type II-hypochondrogenesis: radiological features.Case report. An. Esp. Pediatr. 55: 553-557.
- Yokoyama, T., et al. 2003. A case of Kniest dysplasia with retinal detachment and the mutation analysis. Am. J. Ophthalmol. 136: 1186-1188.
- Rogers, M.A., et al. 2005. Characterization of new members of the human type II keratin gene family and a general evaluation of the keratin gene domain on chromosome 12q13.13. J. Invest. Dermatol. 124: 536-544.
- 5. Schweizer, J., et al. 2006. New consensus nomenclature for mammalian keratins. J. Cell Biol. 174: 169-174.
- Forzano, F., et al. 2007. A familial case of achondrogenesis type II caused by a dominant COL2A1 mutation and "patchy" expression in the mosaic father. Am. J. Med. Genet. A 143A: 2815-2820.
- 7. Wainwright, H., et al. 2008. Visceral manifestations of hypochondrogenesis. Virchows Arch. 453: 203-207.

#### CHROMOSOMAL LOCATION

Genetic locus: Krt76 (mouse) mapping to 15 F3.

#### SOURCE

Keratin 76 (F-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Keratin 76 of mouse origin.

# PRODUCT

Each vial contains 200  $\mu g$  IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-168295 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### APPLICATIONS

Keratin 76 (F-12) is recommended for detection of Keratin 76 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 other Keratin family members .

Suitable for use as control antibody for Keratin 76 siRNA (m): sc-146424, Keratin 76 shRNA Plasmid (m): sc-146424-SH and Keratin 76 shRNA (m) Lentiviral Particles: sc-146424-V.

Molecular Weight of Keratin 76: 63 kDa.

#### **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) Immunofluo-rescence: 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.

# **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.