BACKGROUND
Cullin proteins comprise a distinct family of mediators that participate in the selective targeting of proteins for ubiquitin (Ub)-mediated proteolysis. CUL-7 mediates the third step of ubiquitin conjugation as part of an SCF-like complex consisting of CUL-7, RBX1, SKP1, FBXW8 and GLMN isoform 1, which interacts with a complex of SKP1 and FBXW8, but not with SKP1 alone. This complex is thought to play a role in the degradation of proteins involved in proliferation and/or differentiation. CUL-7 is highly expressed in fetal kidney and adult skeletal muscle in addition to abundant expression in fetal brain and adult pancreas, kidney, placenta and heart. It is also detected in trophoblasts, lymphoblasts, osteoblasts, chondrocytes and skin fibroblasts. Defects in the gene encoding CUL-7 result in 3-M syndrome, an autosomal recessive disorder characterized by severe pre- and postnatal growth retardation, facial dysmorphism, large head circumference and normal intelligence and endocrine function as well as skeletal changes including long slender tubular bones and tall vertebral bodies.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: CUL7/CUL9 (human) mapping to 6p21.1; CUL7/CUL9 (mouse) mapping to 17 C.

SOURCE
CUL-7 (AB38) is a mouse monoclonal antibody raised against amino acids 835-842 of CUL-7 of human origin.

PRODUCT
Each vial contains 200 μg IgG2b kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

APPLICATIONS
CUL-7 (AB38) is recommended for detection of CUL-7 and PARC 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of CUL-7: 185 kDa.
Positive Controls: CUL-7 (h): 293T Lysate: sc-115286, T98G cell lysate: sc-2294 or U-2 OS cell lysate: sc-2295.

RECOMMENDED SUPPORT REAGENTS
To ensure optimal results, the following support reagents are recommended:

DATA
CUL-7 (AB38): sc-53810. Western blot analysis of CUL-7 expression in non-transfected 293T: sc-117752 (A), human CUL-7 transfected 293T: sc-115286 (B) and T98G (C) whole cell lysates.

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 website at www.scbt.com for detailed protocols and support products.