BACKGROUND

The Ski family of oncogenes includes Ski and Sno (Ski-related novel gene, or Ski-like). Three isoforms of human Sno (SnoN, SnoA and SnoI) and two isoforms in mouse (SnoN and SnoN2, also designated sno-dE3) are produced by alternative splicing of the SKIL gene. Ski family members are nuclear proteins that form homodimers and heterodimers, bind to DNA and function as transcriptional activators and repressors. These proteins consist of five tandem repeats in the C-terminal domain and two leucine zipper motifs that are responsible for efficient DNA binding, trimerization and cellular transformation. The Ski proteins regulate TGFβ-induced gene-specific transcriptional activation by effectively repressing Smad activity and, thereby, inhibit TGFβ-induced cell growth and extracellular matrix production. The amino-terminus of Ski and SnoN preferentially associates with the MH2 domain of Smad2 and Smad4 of the Smad family of transcription factors, where they then recruit the transcriptional corepressor protein N-CoR to the complex to inhibit transcription. Alternatively, Ski proteins are negatively regulated by various Smad proteins, as TGFβ induces Smad3 accumulation in the nucleus, where it is then responsible for inducing the rapid degradation of SnoN and facilitating TGFβ signaling pathways and Smad-activated gene transcription.

CHROMOSOMAL LOCATION

Genetic locus: SKI (human) mapping to 1p36.33; Ski (mouse) mapping to 4E2.

SOURCE

Ski (G8) is a mouse monoclonal antibody raised against recombinant v-Ski.

PRODUCT

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-33693X, 200 µg/0.1 ml.

APPLICATIONS

Ski (G8) is recommended for detection of Ski from mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range ), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50-1:500).


Ski (G8) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Ski: 95-115 kDa.

Positive Controls: PC-3 cell lysate: sc-2220, THP-1 cell lysate: sc-2238 or Sol8 cell lysate: sc-2249.

STORAGE

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