

#### OriGene Technologies, Inc.

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# **Product datasheet for TA326394**

## Nucleostemin (GNL3) Mouse Monoclonal Antibody [Clone ID: 3C12-H11]

### **Product data:**

**Product Type:** Primary Antibodies

Clone Name: 3C12-H11

Applications: IHC, WB

Recommend Dilution: WB: 1:2000

Reactivity: Human, Mouse, Rat

Host: Mouse

**Isotype:** IgG1, kappa **Clonality:** Monoclonal

Immunogen: His-tagged human recombinant hsp22

**Formulation:** PBS pH7.4, 50% glycerol, 0.09% sodium azide

Concentration: 1 mg/ml

Purification: Protein G Purified

Gene Name: G protein nucleolar 3

Database Link: NP 996562 Entrez Gene 30877 MouseEntrez Gene 290556 RatEntrez Gene 26354 Human

**Background:** Hsp22 (HSPB8) is a 196-amino acid protein that is a member of the small heat shock protein

super-family and the human protein is most closely related to Hsp27. Similar to most other sHSPs, Hsp22 is predominately transcribed in skeletal muscle and heart, as well as the placenta . Hsp22 is a monomeric protein which interacts with HSPB1. It displays temperature-dependent chaperone activity. In a two hybrid screen, HspB8 interacted preferentially with a triple aspartate form of Hsp27 which mimics Hsp27 phosphorylated at Ser15, Ser78, and Ser82, as compared to wild-type Hsp27 . HSPB8 has two binding domains (N and C Terminal) that are specific for different binding partners, and has the ability to bind itself and other sHSPs . The chaperone-like activity is of great importance to the function of Hsp22 in various processes including proliferation, apoptosis and macroautophagy . Mutations in the HSPB8 gene are associated with the inherited peripheral neurpathies, autosomal dominant distal hereditary motor neuropathy type IIA (dSMA) and axonal Charcot-Marie-Tooth disease type

2L (CMT2L).

Synonyms: C77032; E2IG3; NNP47; NS



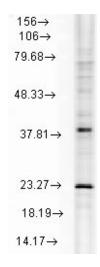


**Note:** Detects endogenous and exogenous hsp22 in monomeric, dimeric and tetrameric forms in

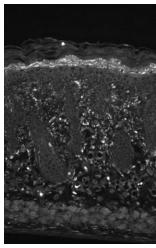
WB. Does not cross react with alpha crystallin.

**Protein Families:** ES Cell Differentiation/IPS, Stem cell - Pluripotency

## **Product images:**



Western blot analysis of Hsp22 in rat tissue mix using a 1:1000 dilution of the antibody



IHC analysis of Hsp22, tested on mouse backskin sections. Courtesy of Dr. Turksen, Ottawa Hospital Research Institute.