

## Product datasheet

# Recombinant Human beta III Tubulin protein ab125990

### 概述

产品名称	重组人beta III Tubulin蛋白
蛋白长度	Protein fragment

### 描述

性质	Recombinant
来源	Escherichia coli

### 氨基酸序列

Accession [Q13509](#)

种属 Human

序列

```

QCGNQIGAKFWEVISDEHGIDPSGNYVGSDQLERISVY
YNEASSHKYV
PRAILVDLEPGTMSVRSRSGAFGHLFRPDNFI FGQSGAGNN
WAKGHYTEGA
ELVDSVLDVVRKECENCDCDCLQGFQLTHSLGGGTGSGMGTL
LISKVREEYP
DRIMNTFSVVPSPKVS DTVVEPYNATLSIHLVENTDETY
CIDNEALYDI
CFRTLK LATPTYGDLNHLVSATMSGVTTSLRFPGQLNADL
RKLAVNMVVF PRLHFFMPG
    
```

氨基酸 11 to 269

### 技术指标

Our [Abpromise guarantee](#) covers the use of **ab125990** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应用 SDS-PAGE

形式 Lyophilised

### 制备和贮存

稳定性和存储 Shipped at 4°C. Store at -20°C.

Constituents: 0.32% Tris HCl, 0.58% Sodium chloride, 28.8% Guanidine HCl

## 复溶

Reconstitute with water to desired concentration.

## 常规信息

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### 功能

Tubulin is the major constituent of microtubules. It binds two moles of GTP, one at an exchangeable site on the beta chain and one at a non-exchangeable site on the alpha-chain. TUBB3 plays a critical role in proper axon guidance and maintenance.

### 组织特异性

Expression is primarily restricted to central and peripheral nervous system.

### 疾病相关

Defects in TUBB3 are the cause of congenital fibrosis of extraocular muscles type 3A (CFEOM3A) [MIM:600638]. A congenital ocular motility disorder marked by restrictive ophthalmoplegia affecting extraocular muscles innervated by the oculomotor and/or trochlear nerves. It is clinically characterized by anchoring of the eyes in downward gaze, ptosis, and backward tilt of the head. Congenital fibrosis of extraocular muscles type 3 presents as a non-progressive, autosomal dominant disorder with variable expression. Patients may be bilaterally or unilaterally affected, and their oculo-motility defects range from complete ophthalmoplegia (with the eyes fixed in a hypo- and exotropic position), to mild asymptomatic restrictions of ocular movement. Ptosis, refractive error, amblyopia, and compensatory head positions are associated with the more severe forms of the disorder. In some cases the ocular phenotype is accompanied by additional features including developmental delay, corpus callosum agenesis, basal ganglia dysmorphism, facial weakness, polyneuropathy.

### 序列相似性

Belongs to the tubulin family.

### 结构域

The highly acidic C-terminal region may bind cations such as calcium.

### 翻译后修饰

Some glutamate residues at the C-terminus are polyglutamylated. This modification occurs exclusively on glutamate residues and results in polyglutamate chains on the gamma-carboxyl group. Also monoglycylated but not polyglycylated due to the absence of functional TTL10 in human. Monoglycylation is mainly limited to tubulin incorporated into axonemes (cilia and flagella) whereas glutamylation is prevalent in neuronal cells, centrioles, axonemes, and the mitotic spindle. Both modifications can coexist on the same protein on adjacent residues, and lowering glycylation levels increases polyglutamylated, and reciprocally. The precise function of such modifications is still unclear but they regulate the assembly and dynamics of axonemal microtubules.

### 细胞定位

Cytoplasm > cytoskeleton.

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