PRODUCT INFORMATION

Glucosamine-Poly-L-Lysine
Ref: PLGLU

Product Description
Form / Colour: lyophilized powder/ white

Molecular weight: ≃ 16 kDa

Glucosamine, as Glucosamine hydrochloride, is linked to the amino group of Poly-L-Lysine, as Poly-L-Lysine hydrobromide, using anhydride glutaric as linker, according to published linkage methods (Geffard et al., 2010).

Glucosamine-Poly-L-Lysine identification is performed by Infra-Red spectroscopy.

Glucosamine (GlcN) is naturally formed by the body, but can also be provided in the diet (Jerosch, 2011). One of the major focuses of the study of glucosamine in the past decade had been to investigate the nature of its anti-inflammatory, antioxidative, and antiapoptotic effects (Geng et al., 2012; Hilgers et al., 2012; Liu et al, 2013). Thus, GlcN could be expected as a novel anti-platelet agent for thrombotic disorders due to its suppressive actions on platelets (Hua et al., 2004), as a potential drug for retinal protection from acute glaucoma-induced of ischemia-reperfusion injury (Chen et al., 2015) and as novel neuroprotective agent (Hwang et al., 2010). Moreover, based on the preclinical and clinical data, it is obvious that glucosamine can modulate osteoarthritis and in long-term use it exhibits, in contrast to NSAIDs, an excellent safety profile, with as few adverse events as placebo (Jerosch, 2011). Finally, GlcN intake was shown to prevent post-menopausal osteoporosis by suppressing the enhancement of bone metabolism (Hironobu et al., 2016).

GlcN formulations with enhanced bioavailability should be use in clinical trials (Aghazadeh-Habashi and Jamali, 2011). Now, according to published data, the conjugation of glucosamine to Poly-L-lysine may sustain Glucosamine in vivo activity (Ali et al., 2004) and should improve Glucosamine cellular transport (Ryser and Shen, 1978).

Precautions and Disclaimer
For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions
This product is soluble in water (6 to 8 mg/mL).

Storage/Stability
The product is stable for up to 6 months when stored protected from light, at 2-8°C.
References


