NEW-U
RESEARCH COMPOUNDS

CERTIFICATE OF ANALYSIS

new-u.io/coa · /pdf/igf-1-lr3.pdf

RECOVERY

IGF-1 LR3

Long Arg³ IGF-1

Recombinant IGF-1 variant with extended ~20–30 h half-life via IGFBP resistance.

MECHANISM	DOSAGE	HALF-LIFE	FORMAT
IGF-1 receptor agonist — PI3K / Akt / mTOR and RAS / MAPK activation	20–60 mcg/day SC or IM	~20–30 hours	Lyophilised powder

BATCH	LOT	CAS	FORMULA	ISSUED	RETEST
NU-IGF-5316	122316	946870-92-4	C400H625N111…	2025-11-24	2026-11-24

OVERVIEW

IGF-1 LR3 is a recombinant variant of human IGF-1 with an arginine substitution at position 3 and a 13-amino-acid N-terminal extension, which reduces insulin-receptor binding affinity and prevents IGF binding-protein (IGFBP) sequestration. The result is a half-life of ~20–30 hours versus <15 minutes for native IGF-1.

MECHANISM OF ACTION

IGF-1 receptor agonist — PI3K / Akt / mTOR and RAS / MAPK activation

KEY RESEARCH BENEFITS

- Dramatically extended half-life vs native IGF-1
- Muscle satellite-cell activation and hyperplasia
- Enhanced fat oxidation via IGF receptor signalling
- Neuronal survival and regeneration
- Rapid tissue recovery post-intensive stimulus

RESEARCH NOTES

Cell-culture and animal studies demonstrate potent anabolic and anti-apoptotic effects. Binding-protein resistance confers superior pharmacokinetics in tissue-distribution studies.

STORAGE & STABILITY

Lyophilised: -20 °C, stable >=24 months. Reconstituted: 2–8 °C, use within 7 days. Sensitive to freeze–thaw cycles.

THIRD-PARTY HPLC VERIFIED

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