

# Product data sheet



MedKoo Cat#: 319870 Name: Eprotirome CAS#: 355129-15-6 Chemical Formula: C <sub>18</sub> H <sub>17</sub> Br <sub>2</sub> NO <sub>5</sub> Exact Mass: 484.9473 Molecular Weight: 487.144	
Product supplied as: Powder	
Purity (by HPLC): ≥ 98%	
Shipping conditions: Ambient temperature	
Storage conditions: Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.	

## 1. Product description:

Eprotirome, also known as KB-2115, is a liver-selective thyroid hormone receptor agonist that has been shown to lower plasma LDL cholesterol concentrations in previous phase 1 and 2 studies of patients with dyslipidaemia. KB2115 lowers plasma LDL cholesterol and stimulates bile acid synthesis without cardiac effects in humans.

## 2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

## 3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	84.0	172.43
DMF	30.0	61.58
Ethanol	63.5	130.35
Ethanol:PBS (pH 7.2) (1:1)	0.5	1.03

## 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.05 mL	10.26 mL	20.53 mL
5 mM	0.41 mL	2.05 mL	4.11 mL
10 mM	0.21 mL	1.03 mL	2.05 mL
50 mM	0.04 mL	0.21 mL	0.41 mL

## 5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

## 6. Recommended literature which reported protocols for in vitro and in vivo study

### In vitro study

1. Oláh A, Gherardini J, Bertolini M, Chéret J, Ponce L, Kloeppe J, Bíró T, Soeberdt M, Abels C, Paus R. The Thyroid Hormone Analogue KB2115 (Eprotirome) Prolongs Human Hair Growth (Anagen) Ex Vivo. *J Invest Dermatol.* 2016 Aug;136(8):1711-1714. doi: 10.1016/j.jid.2016.03.033. Epub 2016 Apr 8. PMID: 27066887.

### In vivo study

1. Szydłowska M, Pibiri M, Perra A, Puliga E, Mattu S, Ledda-Columbano GM, Columbano A, Leoni VP. The Thyromimetic KB2115 (Eprotirome) Induces Rat Hepatocyte Proliferation. *Gene Expr.* 2017 Jul 7;17(3):207-218. doi: 10.3727/105221617X695438. Epub 2017 Apr 13. PMID: 28409553; PMCID: PMC5896737.

## 7. Bioactivity

### Biological target:

Eprotirome (KB2115) is a liver-selective thyroid hormone receptor (TR) agonist.

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## In vitro activity

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Quantitative hair cycle histomorphometry showed that KB2115 treatment significantly increased the percentage of anagen HF's compared with vehicle controls (Figure 1a).

Reference: J Invest Dermatol. 2016 Aug;136(8):1711-1714. <https://pubmed.ncbi.nlm.nih.gov/27066887/>

## In vivo activity

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As shown in Figure 1F, 1-week treatment with IP injections of KB2115 (25 and 12.5 µg/100 g b.w.) induced a strong rat hepatocyte proliferation, as assessed by BrdU incorporation. Indeed, LI displayed a five- to sixfold increase compared to controls. Notably, the extent of hepatocyte proliferation elicited by KB2115 was similar to that observed by repeated injections of T3.

Reference: Gene Expr. 2017; 17(3): 207–218. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5896737/>

*Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.*