BRING THIS TO YOUR DOCTOR · GREY PEPTIDES

Copper Cu 64 dotatate

Also called: Detectnet; 64Cu-DOTATATE; Copper oxodotreotide; Cu-64 DOTATATE

What it is

A copper-64-labelled octreotate peptide for PET imaging of neuroendocrine tumours, approved as Detectnet (2020).

Approval status

FDA Approved. Approved in the US as Detectnet (copper Cu 64 dotatate injection), NDA 213227, on September 3, 2020 (Drugs@FDA via openFDA and the Detectnet label effective January 31, 2025, read October 3, 2026).

Dosing, as printed in the page's Recommended Dosing box

Manufacturer's recommended dosing (FDA label)

From the prescribing information. Other doses studied, if any, are in the full dosing data below.

Protocol and source	Dose	Frequency	Duration	Route
Label: PET localisation of somatostatin receptor-positive neuroendocrine tumours, adults **[Approved label]** Detectnet (copper Cu 64 dotatate injection) US prescribing information (Curium; DailyMed set f898c8a7, effective January 31, 2025)	148 MBq (4 mCi)	Single injection over about 1 minute	Imaging 45-90 minutes after injection	Intravenous

Educational information, not medical advice. Each dose above is tagged with its source: an approved label, a published human study, animal data, or amounts reported by users. None is a recommendation for you. An unapproved compound has no established safe or effective human dose, and products sold for "research use only" are not made or tested for people. Talk to a doctor before acting on anything on this site, including before you start, stop or change any medicine or dose.

Key human evidence

The first 3 of the 12 human studies carded on the page (12 study cards in all):

• **Phase 3: dose and diagnostic performance** (Human, 2020). A dose-ranging study chose 148 MBq; masked reads of 21 healthy volunteers and 42 patients gave 90.9% sensitivity and 96.6% specificity (100% and 96.8% after correcting a standard-of-truth misread), with no drug-related or serious adverse events. **PMID 31924723**

• **Head-to-head against gallium-68 DOTATOC** (Human, 2017). In 59 patients, 701 lesions were found by both scans; of 68 found by only one, copper-64 DOTATATE found 33 true positives and gallium-68 DOTATOC 7, so 83% of additional true lesions came from the copper tracer. **PMID 27660147**

• **First in humans** (Human, 2012). In 14 patients, copper-64 DOTATATE PET gave high-quality images with stable tumour-to-background ratios for at least 3 hours and found additional lesions in 6 (43%) compared with conventional scintigraphy, including previously unknown metastatic sites. **PMID 22782315**

Interactions

From the FDA label's drug-interaction section (Curium. DETECTNET (copper Cu 64 dotatate) US prescribing information, section 7. DailyMed version of January 31, 2025, read October 3, 2026):

• With long-acting somatostatin analogues: compete for receptors; a 28-day washout is recommended before imaging (FDA label)

• With short-acting somatostatin analogues: compete for receptors; a 2-day washout is recommended before imaging (FDA label)

Side effects and cautions

Reported side effects	Contraindications and cautions
• No drug-related adverse events in the phase 3 study	• Radiation risk • Hypersensitivity reactions • Risk of image misinterpretation

Five questions to ask

1. Is Copper Cu 64 dotatate right for me, and is the labelled dose on this sheet right for my weight, age, kidney and liver function?
2. Here are the medicines and supplements I take. Do any of them interact with Copper Cu 64 dotatate? This sheet lists the interactions on record.
3. Which side effects should make me stop and call you, for example no drug-related adverse events in the phase 3 study?
4. Do any of the cautions on this sheet apply to me, such as: Radiation risk?
5. What should we check before I start and while I am on it (blood tests, blood pressure, weight), and how often?

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