

CUSTOM MRI: GRADIENT ECHO

The blue region is a fibroblast cell pellet in the bottom of a 10mm OD NMR tube, roughly 5mm x 2mm x 1 mm. $T_1 \sim 900\text{ms}$.

Custom properties

External "Write" Coil:

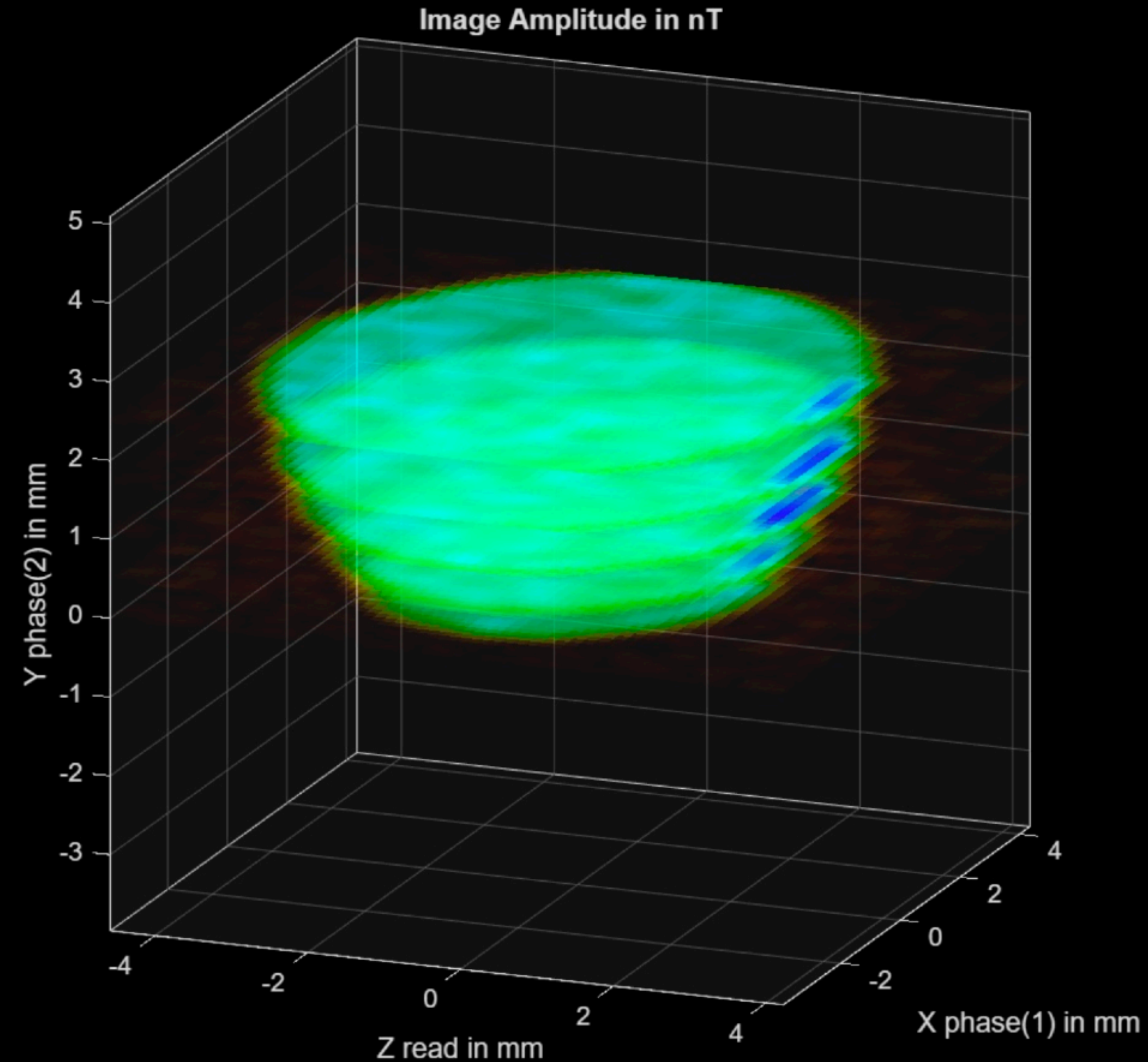
5W continuous

10 μH , 1 Ω

B0 offset

RL Agent Control

MR Elastography



K⁺ NANOSENSOR

PAMAM + APG4 + AF568

Fluorescence intensity of APG4 increases upon K⁺ binding

Properties

Non-invasive

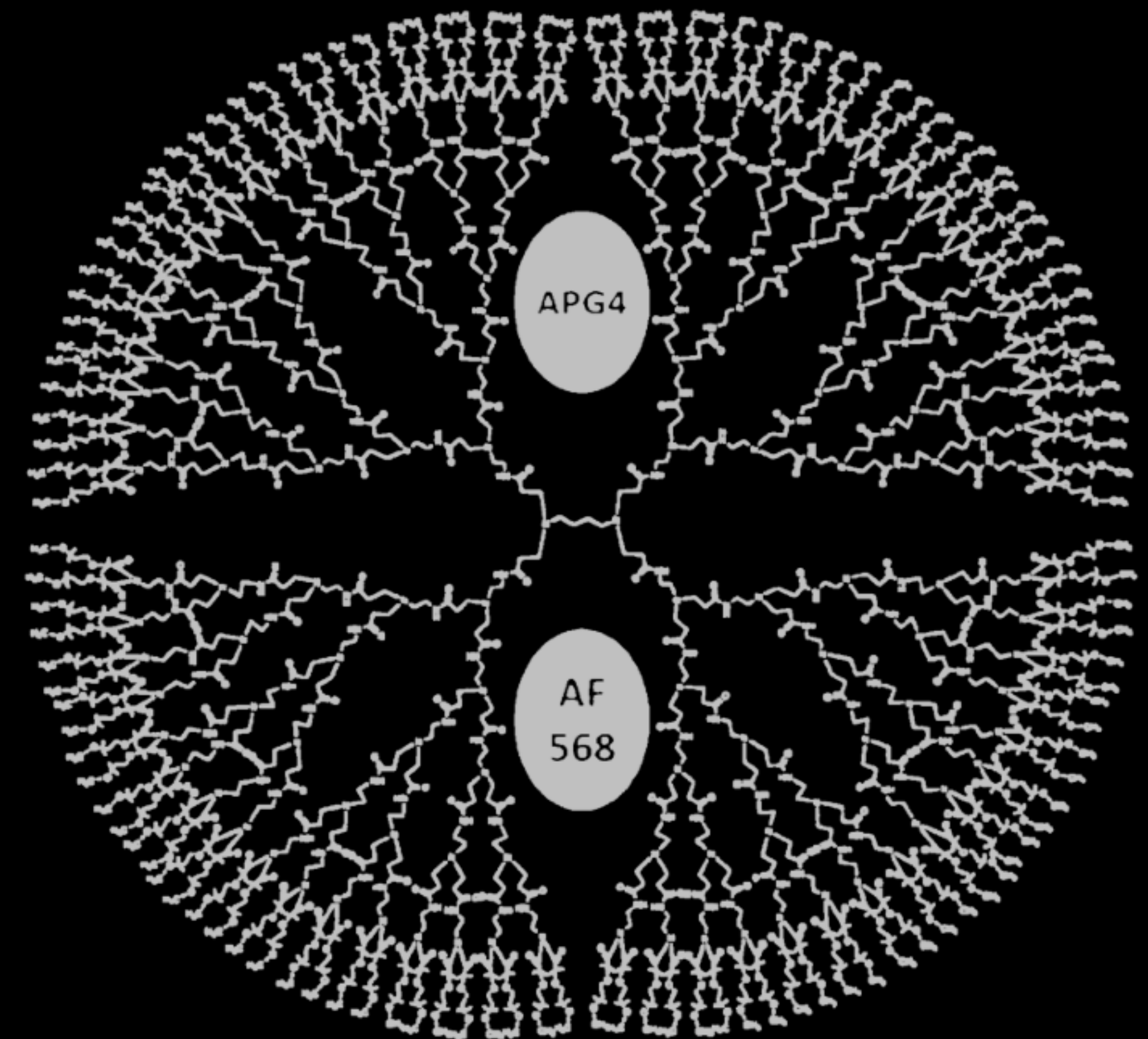
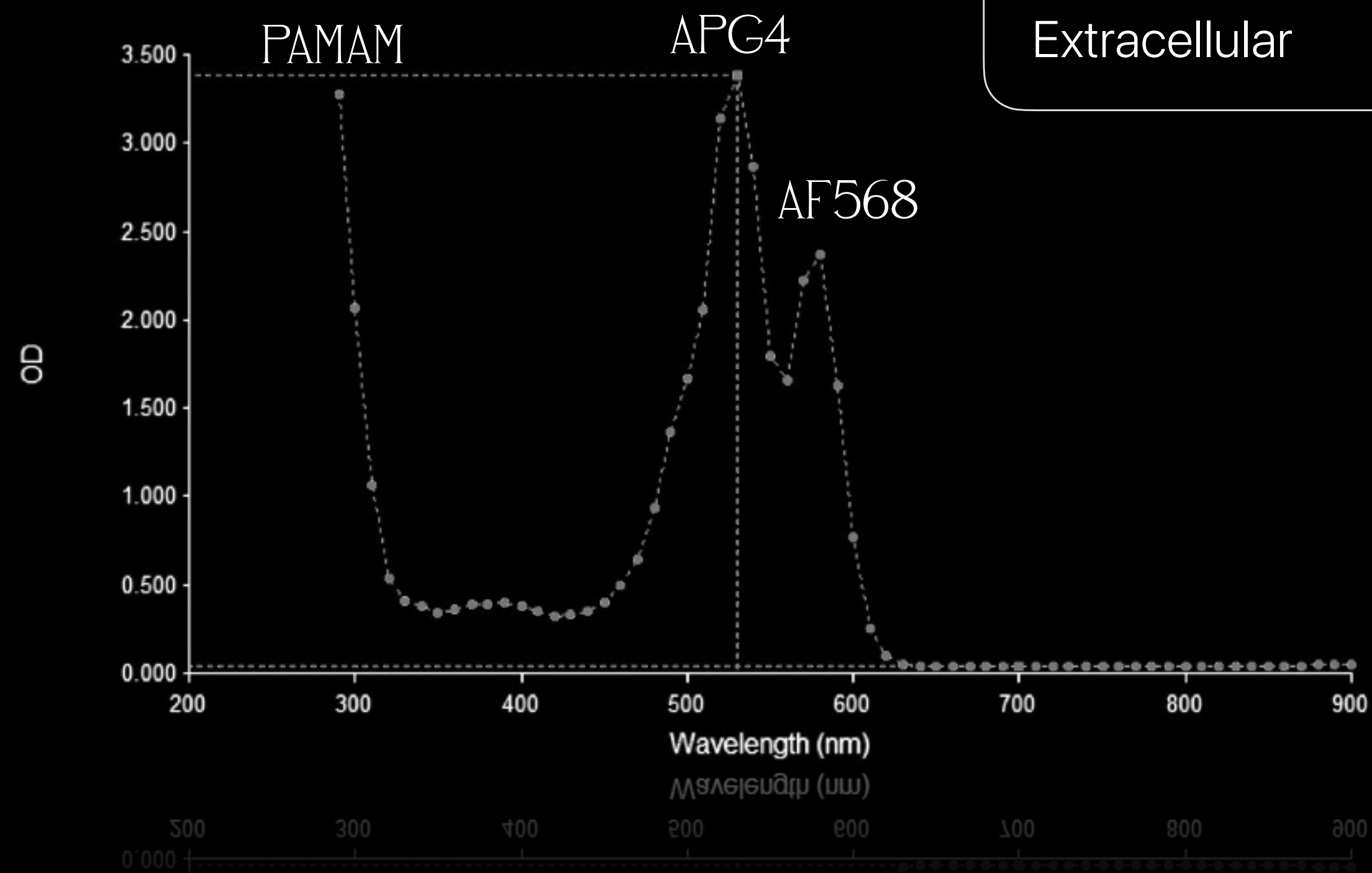
K⁺ specific

Ratiometric

Brighter than PBF1

No Na⁺ signal >165mM

Extracellular



(Wellbourne-Wood, 2017)