

Materials List for:

An Aptamer-based Sensor for Unchelated Gadolinium(III)

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Materials

Name	Company	Catalog Number	Comments
Gd-aptamer	IDTDNA	Input sequence and fluorophore modification in the order form	A fluorophore with a different emission wavelength may be used. The aptamer may also be ordered from another company.
Quenching strand	IDTDNA	Input sequence and quencher modification in the order form	A different quencher for optimal energy transfer from the fluorophore may be used. The aptamer may also be ordered from another company.
Molecular biology grade water			No specific manufacturer, both DEPC or non-DEPC treated work equally well
Gadolinium(III) chloride anhydrous	Strem	936416	Toxic
HEPES	Fisher Scientific	BP310-500	
Magnesium chloride anhydrous	MP Biomedicals	0520984480 - 100 g	
Sodium Chloride	Acros Organics	327300025	
Potassium chloride	Fisher Scientific	P333-500	
Sodium hydroxide, pellets	Fisher Scientific	BP359	Corrosive
Hydrochloric acid	Fisher Scientific	SA49	Toxic and corrosive
384-well low flange black flat bottom polystyrene NBS plates	Corning	3575	Plates which are suitable for fluorescence reading are required.
Nalgene Rapid-Flow sterile disposable bottle top filter	Thermo Scientific	5680020	The bottle top is fitted with 0.2 micron PES membrane
Disposable sterile bottles 250 mL	Corning	430281	A larger or smaller bottle may be used
1.5 mL microcentrifuge tubes			No specific manufacturer, as long as they are DNase and RNase-free
0.2 mL PCR tubes			No specific manufacturer, as long as they are DNase and RNase-free
Micropipets			No specific manufacturer
Pipet tips (non filter) of appropriate sizes			No specific manufacturer, as long as they are DNase and RNase-free
Equipment			
Plate reader	Biotek Synergy H1		Plate readers from other manufacturers would work equally well