

**Mitochondrial membrane potential**

Components	Test (J7)	Positive control (J7F)
Sperm aliquot (10 <sup>6</sup> /mL)	190μL	190μL
7-AAD (concentration is proprietary)	4μL	4μL
JC-1 (1mM)	4μL	4μL
FCCP (10mM) in DMSO	-	1μL
DMSO	1μL	-

**Oxidative Stress**

Components	Test (M7)	Positive control (M7AA)
Sperm aliquot (10 <sup>6</sup> /mL)	190μL	190μL
7-AAD (concentration is proprietary)	4μL	4μL
MSR (50μg in 13μL DMSO)	4μL	4μL
AA (50mM) in EtOH	-	4μL
Ethanol	4μL	-

**Supplementary table 1. Values and concentrations of tube contents for mouse FACS experiments (Oral Administration Cohort).** To assess MMP in viable sperm cells JC-1 and 7-AAD was added into the sperm aliquot. Carbonyl cyanide-trifluoromethoxyphenylhydrazone (FCCP) was added as a positive control. DMSO was added as vehicle.

To assess oxidative stress in live sperm cells, MSR and 7-AAD were added into the sperm aliquot. Arachidonic acid (AA) was added as a positive control. Ethanol was added as vehicle.