

# InVEST44 In Vitro Safety Panel

Specifically designed for early identification of off-target interactions

Reaction Biology offers the InVEST44 panel, designed to enable early identification of significant off-target interactions with your compound. This well regarded set of targets\*, including G-protein-coupled receptors, ion channels, enzymes, transporters, and nuclear receptors focuses on both core systems (central nervous, cardiovascular, and respiratory) and secondary organs (gastrointestinal and renal), addressing potential adverse effects early in the drug development process.

InVEST44 Panel			
Target Family	Target Name	Assay Format	Species
Cyclooxygenase	COX-1	Enzymatic Activity	Ovine
	COX-2	Enzymatic Activity	Human
GPCR	Adenosine A2A	Radioligand Binding	Human
	Adrenergic $\alpha$ 1A	Radioligand Binding	Human
	Adrenergic $\alpha$ 2A	Radioligand Binding	Human
	Adrenergic $\beta$ 1A	Radioligand Binding	Human
	Adrenergic $\beta$ 2A	Radioligand Binding	Human
	Cannabinoid CB1	Radioligand Binding	Human
	Cannabinoid CB2	Radioligand Binding	Human
	Cholecystokinin CCK1	Radioligand Binding	Human
	Dopamine D1	Radioligand Binding	Human
	Dopamine D2S	Radioligand Binding	Human
	Endothelin ETA Agonist & Antagonist	FLIPR/Ca Assay	Human
	Histamine H1	Radioligand Binding	Human
	Histamine H2	Radioligand Binding	Human
	Muscarinic M1	Radioligand Binding	Human
	Muscarinic M2	Radioligand Binding	Human
	Muscarinic M3	Radioligand Binding	Human
	Opioid $\delta$	Radioligand Binding	Human
	Opioid $\mu$	Radioligand Binding	Human
	Opioid $\kappa$	Radioligand Binding	Human
	Serotonin 5-HT1A	Radioligand Binding	Human
Ion Channel	Serotonin 5-HT1B	Radioligand Binding	Human
	Serotonin 5-HT2A	Radioligand Binding	Human
	Serotonin 5-HT2B	Radioligand Binding	Human
	Vasopressin V1A Agonist & Antagonist	Cell Reporter	Human
	Cav1.2	Patch Clamp	Human
	GABAA (Central BDZ)	Radioligand Binding	Rat
	HERG	Fluorescence Polarization	Human
Monoamine Oxidase	nAChR ( $\alpha$ 4 $\beta$ 2) Agonist & Antagonist	FLIPR/Ca Assay	Human
	Nav1.5	Patch Clamp	Human
	NMDA	Radioligand Binding	Rat
	Serotonin 5-HT3	Radioligand Binding	Human
Nuclear Receptor	MAO-A	Enzymatic Activity	Human
	MAO-B	Enzymatic Activity	Human
Phosphodiesterase	Androgen Agonist & Antagonist	Cell Reporter	Human
	Glucocorticoid	Fluorescence Polarization	Human
Transporter	PDE3A	Enzymatic Activity	Human
	PDE4D2	Enzymatic Activity	Human
Other Enzymes	Dopamine (DAT)	Radioligand Binding	Human
	Norepinephrine (NET)	Radioligand Binding	Human
	Serotonin (SERT)	Radioligand Binding	Human
Other Enzymes	Acetylcholinesterase	Enzymatic Activity	Human
	LCK TK	Enzymatic Activity	Human

\*Bowes, J., Brown, A., Hamon, J. *et al.* Reducing safety-related drug attrition: the use of in vitro pharmacological profiling. *Nat Rev Drug Discov* 11, 909–922 (2012).



1 Great Valley Parkway, Suite 2, Malvern, PA 19355 | Tel No: +1.610.722.0247



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