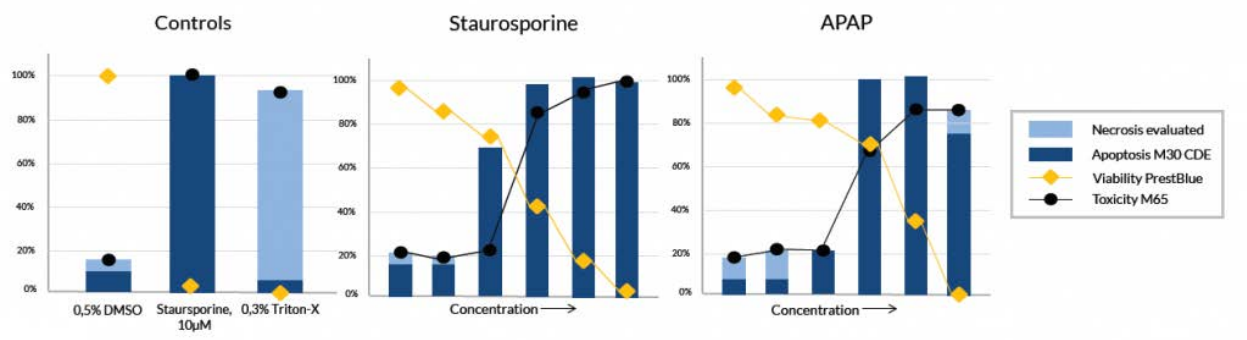
M30 CytoDeath™ ELISA for Assessing Hepatotoxicity of Compounds

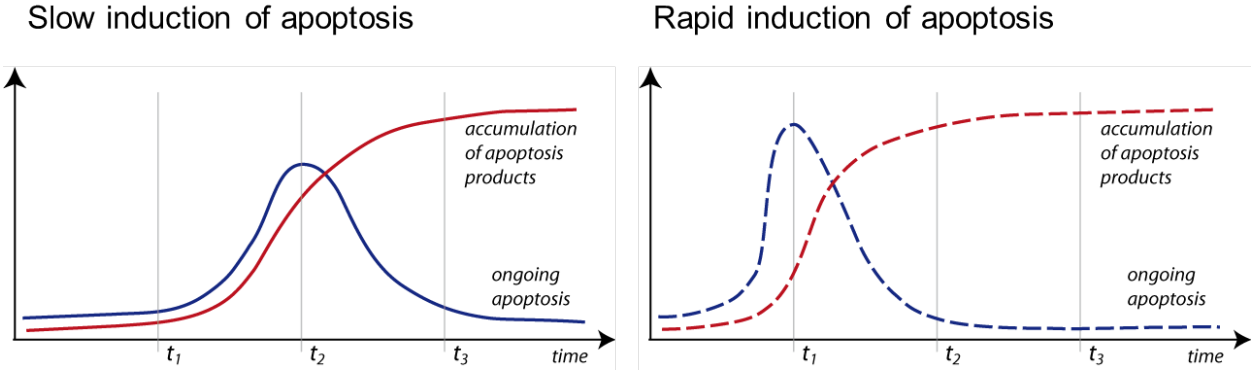
Peviva M30 and M65 Products are for Research Use Only in US and Canada

In a study presented at the SOT Meeting in 2014, toxicity testing on cryopreserved differentiated HepaRG™ cells was performed using CK18 kits. HepaRG™ cells exhibit many characteristics of primary human hepatocytes, including morphology and expression of key metabolic enzymes, nuclear receptors, and drug transporters. Unlike HepG2 cells, HepaRG™ cells have high P450 activity and complete expression of all nuclear receptors. HepaRG™ was exposed to different compounds, including paracetamol, chloropromazine, rotenone, rosiglitazone and omeprazole. Toxicity and apoptosis were assayed from collected cell culture supernatants measuring M65 and M30 levels. M65 results were consistent with cell viability, whereas, M30 results indicated that apoptosis was induced at lower drug concentrations while necrosis was more prominent at higher ones (see figure below).



Human HepRG™ hepatocytes treated with different compounds. Toxicity and apoptosis were assessed from collected supernatants measuring full-length K18 (M65) and caspase-cleaved K18 (ccK18, M30) using M65 EpiDeath® and M30 CytoDeath™ ELISA

M65 and M30 kits robustly detect cell toxicity and apoptosis in HepaRG cells in vitro experiments. A additional key feature is that the CK18 kits measure an accumulated caspase-derived product, so there is no risk to miss time of apoptosis and transient caspase activation (See figure below).



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