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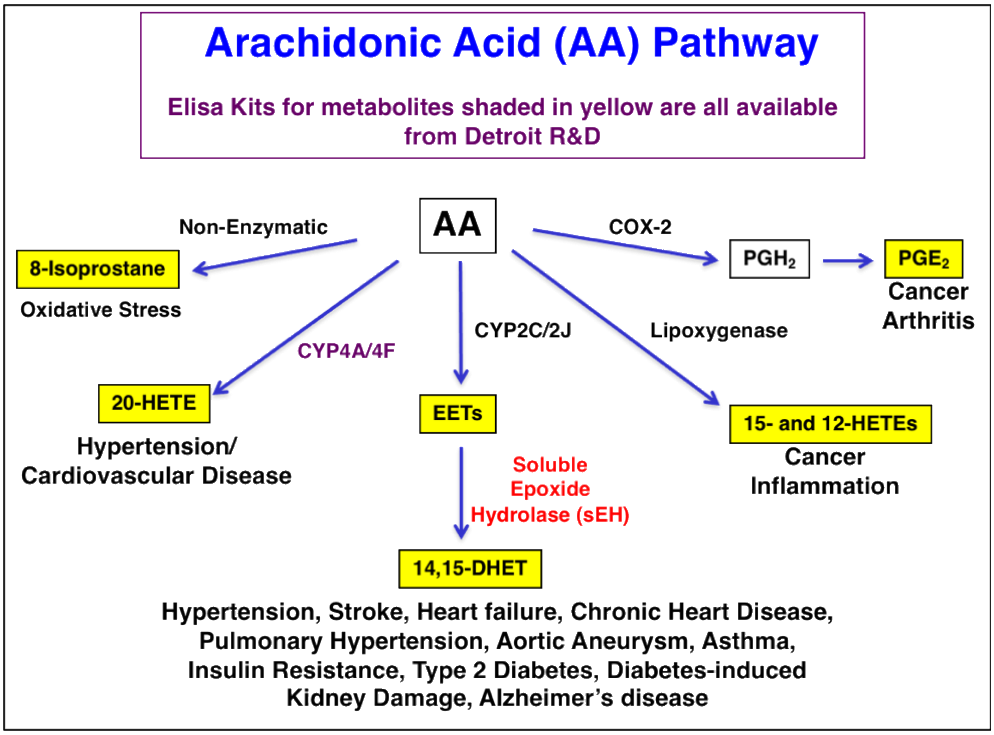
2022 Detroit R & D Product Catalog

www.DetroitRandD.com

ELISA Kits

A. Arachidonic Acid (AA) Pathway ELISA Kits



14,15-DHET and 14,15-EET/DHET: *Bio*Target Hypertension ELISA Kits

BioTarget™ 14,15-DHET Hypertension ELISA kit, **Cat. # DH1**, $360

BioTarget™ 14,15-DHET ELISA Kit for Kidney Disease, **Cat. # DH1**, $360

14,15-EET/DHET kit, **Cat. # DH2**, $360

14,15-DHET Human Urine ELISA Test Kit**, Cat. # DH3**, $386

11,12-DHET and 11,12-EET/DHET: *Bio*Target Hypertension ELISA Kits

11,12-DHET immunoassay kit, **Cat. # DH4**, $360

11,12-EET/DHET kit, **Cat. # DH5**, $360

Cell-Based Soluble Epoxide Hydrolase (sEH) ELISA Kit

ELISA Kit for Measuring sEH Activity in Biological Samples, **Cat # SH1**, $386

20-HETE: BioTarget Hypertension ELISA Kits

20-HETE Hypertension ELISA kit, **Cat. # 20H1**, $360

20-HETE/Beta-Glucuronidase Hypertension ELISA Kit

ELISA Kit for Measuring Glucuronidated 20-HETE, **Cat # 20HG1**, $386

Oxidative Stress ELISA Kit

**(8-isoprostane: *iPF2*α−*III, 8-epi prostaglandin F2*α*, 8-iso prostaglandin F2*α)

8-Isoprostane oxidative stress ELISA kit, **Cat # 8iso1**, $360

PGE_2 ELISA Kit

PGE_2 ELISA kit, **Cat. # PGE1**, $360

Lipoxygenase ELISA Kits

12-HETE

12-HETE Hypertension ELISA kit, **Cat. # 12H1**, $360

15-HETE

15-HETE Hypertension ELISA kit, **Cat. # 15H1**, $360

Detailed Information on the AA Pathway ELISA Assays

AA pathway plays a key role in cardiovascular, e.g., hypertension, heart disease, stroke, kidney damage, inflammatory diseases, e.g., asthma and arthritis, and cancer (see **the AA pathway diagram** above). All of the metabolites of the various AA pathways are blood or urine biomarkers for human and animals.

In AA pathway, there are 4 different biologically active fatty acid pathways (biomarkers: PGE_2, 12-HETE, 15-HETE, 11,12-EET, 11,12-DHET, 14,15-EET, 14,15-DHET, 20-HETE) important for disease diagnoses and prevention and therapeutic intervention and a non-enzymatic oxidative stress pathway (biomarker, 8-isoprostane) for disease diagnoses and prevention. Detroit R&D is the only worldwide sources of 14,15-DHET, 14,15-EET/DHET, 11,12-DHET, 11,12-EET/DHET and 20-HETE ELISA

The first **enzymatic** AA pathway is the cyclooxygenase-2 (COX-2) pathway which produces PGE_2 (biomarker of cancer and arthritis (Cat # PGE1). COX-2 inhibitors, aspirin and non-steroidal anti-inflammatory drugs (NSAIDs), decrease pain and inflammation.

The second **enzymatic** AA pathway is the lipoxygenases (LOXs) pathway which produce eicosatetraenoic acid (HETE), e.g., 12-HETE (Cat # 12H1) and 15-HETE (Cat # 15H1).

The third **enzymatic** AA pathway is the cytochromes (CYPs) 2C and 2J pathway which produces epoxyeicosatrienoic acids (EETs), vasodilators, which are subsequently metabolized to dihydroxyeicosatrienoic acids (DHETs) by soluble epoxide hydrolase (sEH) losing the beneficial vasodilating effects of the EETs. DHETs are further metabolized to the glucuronidated form and excreted to the urine. The primary metabolite of sEH is 14,15-DHET.
Detroit R&D has been awarded National Institute of Health (NIH) Small Business Innovation Research (SBIR) Phases I and II contracts to develop novel ELISA assays to detect 14,15-DHET (Cat # DH1), 14,15-EET/DHET (Cat # DH2) and glucuronidated 14,15-DHET (Cat # DH3) and 11,12-DHET (Cat # DH4) and 11,12-EET/DHET (Cat # DH5) in blood, urine, tissues, cells and cell media 14,15-DHET-formation activity of sEH in a sample can be measured using 14,15-DHET ELISA with EET as a substrate (Cat # SH1) (see ***Bio*Target® Hypertension, Stroke, Diabetes ELISA Youtube** below)

Over 70 references in the area of hypertension, stroke, heart failure, pulmonary hypertension, aortic aneurysm, asthma, insulin resistance, kidney damage were published using the 14,15-DHET ELISA kit.

Detroit R&D NIH SBIR Contracts-Supported R&D
for Disease Biomarkers & Tools for Drug Development:
***Bio*Target® Hypertension, Stroke, Diabetes ELISA**
www.youtube.com/watch?v=zG8W_sXZwCg

The fourth **enzymatic** AA pathway is the cytochromes (CYPs) 4A and 4F (AA ω-hydroxylase) pathway which produces 20-hydroxyeicosatetraenoic acid (20-HETE). 20-HETE (Cat # 20H1) and glucuronidated 20-HETE (Cat # 20HG1) are biomarkers of hypertension and cardiovascular and kidney diseases. Over 40 references published using the 20-HETE ELISA kit.

Non-enzymatic AA pathway is the 8-isoprostane, an oxidative stress biomarker pathway which is associated with many old age diseases including dementia and Alzheimer's disease, type 2 diabetes (Cat # 8iso1).

B. Environmental Contaminants ELISA Kits

BPA (Bisphenol A) Environmental Estrogen

BPA ELISA Kit, **Cat # BPA1**, $360

BPS (Bisphenol S) Environmental Estrogen

BPS ELISA Kit, **Cat # BPS1**, $360

2-NAP (2-Naphthol) Air Pollution ELISA Kit

BPS ELISA Kit, **Cat # BPS1**, $360