



Metro Center for High Technology Bldg.
2727 Second Ave. Suite 4113
Detroit, MI 48201
Phone: (313) 961-1606; Fax: (313)963-7130
Email: info@DetroitRandD.com
Web: www.DetroitRandD.com

14,15-DHET Human Urine Test Kit

Cat # DH 3: ELISA kit for measuring 14,15-DHET in urine.

This competitive ELISA kit is for determination of free and glucuronidated 14,15-DHET levels in urine. The 14,15-DHET is a representative metabolite of soluble epoxide hydrolase-mediated metabolism of EETs, which are generated by arachidonic acid epoxygenase activity of cytochromes P450. 14,15-DHET level exhibited strong positive correlation with hypertension in rat and human and brain injury and stroke in rodents. Human urine and blood 14,15-DHET levels were measured using the 14,15-DHET ELISA kit. Increased 14,15-DHET levels of human cells as detected by the 14,15-DHET ELISA were indicative of the neoplastic and metastatic phenotype of carcinoma cells.

A) Free 14,15-DHET Measurement

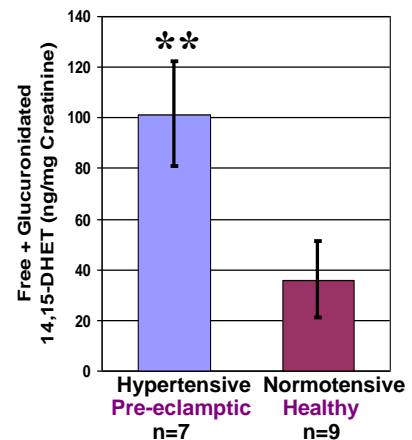
Simple Assay : Urinary DHET can be measured without ethyl acetate extraction. Just dilute 4 to 10- fold and apply sample to ELISA plate for measurement of free DHET

B) Glucuronidated 14,15-DHET Measurement:

This method is for determining the level of glucuronidated 14,15-DHET in urine after digestion of the molecule with glucuronidase. The ELISA antibody does not recognize the glucuronidated form of the 14,15-DHET molecule. Following digestion, any glucuronidated 14,15-DHET is converted to free 14,15-DHET which can be detected by the ELISA antibody.

C) Total 14,15-DHET Measurement (= A) Free + B) Glucuronidated)

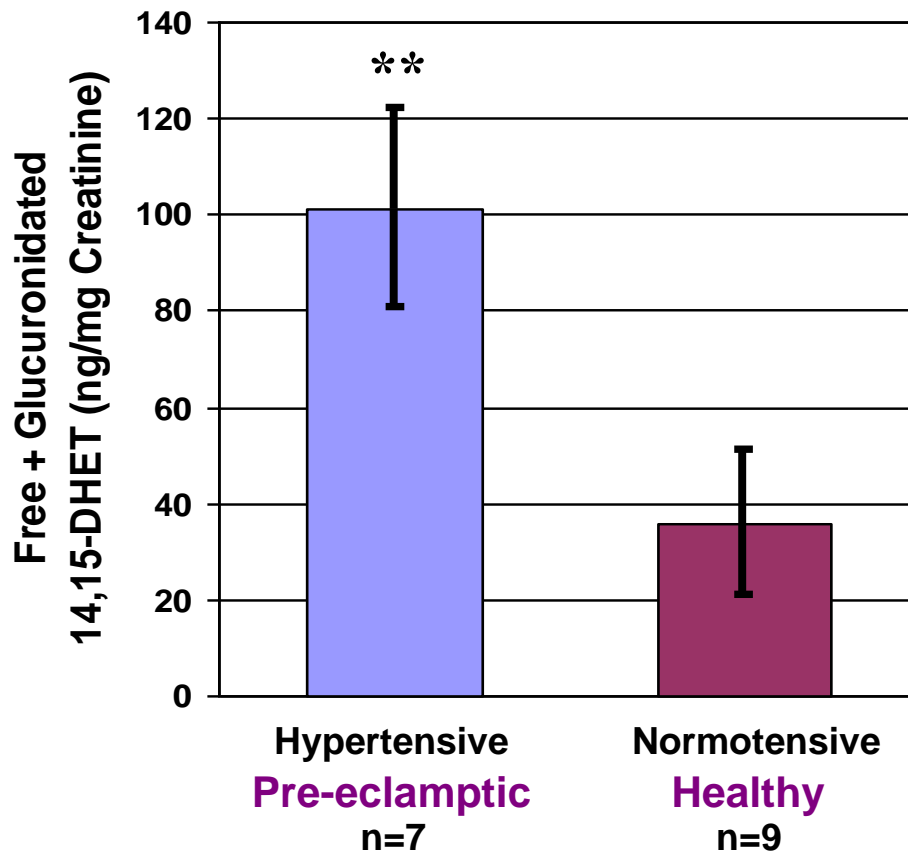
Each kit is for triplicate analyses of up to 24 free 14,15-DHET measurements and 16 glucuronidated 14,15-DHET measurements. The kit contains one 96 well plate, one vial of 14,15-DHET standard, one vial of 14,15-DHET-conjugated horse-radish peroxidase (HRP), 1 vial of beta-glucuronidase enzyme and buffers for sample dilution, 14,15-DHET HRP dilution, and plate washing.



**Significantly different at 98% confidence (p<0.02)

14,15-DHET Human Clinical Data

ELISA Test with Coded Urine from Pregnant Women



Urinary 14,15-DHET levels of pregnancy-induced hypertensive (pre-eclamptic) women were significantly different at 98% confidence ($p < 0.02$) from healthy pregnant women. **No false negative.**

Thus, the 14,15-DHET ELISA is useful for detection of soluble epoxide hydrolase- and/or UDP-glucuronosyl transferase-dependent hypertensions and development of new hypertension drugs.