



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

Chemotherapy-Induced Cardiotoxicity ELISA Kit GDF-15 (NAG-1, MIC-1) Cat# GDF15E

(GDF-15) growth differentiation factor-15
(NAG-1) non-steroidal anti-inflammatory drug (NSAID)-activated gene-1
(MIC-1) macrophage inhibitory cytokine-1

This sensitive sandwich ELISA kit is for the determination of GDF-15 levels in biological samples. Sensitivity (detection limit) is 50 pg/mL.

GDF-15 (also known as MIC-1 and NAG-1) shows great promise as a prognostic biomarker of cardiotoxicity in cancer patients receiving doxorubicin chemotherapy (2), as a prognostic biomarker of heart failure and acute coronary syndrome and as a myocardial protective cytokine (3, 5, 6). GDF-15 levels are also correlated with obesity, inflammation and prostate cancer. (1, 4, 7).

Each kit is sufficient for triplicate analyses of up to 24 samples and contains one 96 well plate

Related Product

Goat polyclonal antibody for human GDF-15,
Cat# GDF-15

References:

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2. Putt, M et al. Longitudinal changes in multiple biomarkers are associated with cardiotoxicity in breast cancer patients treated with doxorubicin, taxanes, and trastuzumab. Clinical Chemistry 61: 1164-1172 (2015).
3. Xu, XY, Nie, Y, Wang FF, Bai, Y, Lu, ZZ and Zhang, YY. Growth differentiation factor 15 in cardiovascular diseases: from bench to bedside. Biomarkers 16: 466-475 (2011).
4. Welsh, JB, Sapinoso, LM, Kern, SG, Brown, DA, Liu, T, Bauskin, AR, Ward, RL, Hawkins, NJ, Quinn, DI, Russell, PJ, Sutherland, RL, Breit, SN, Moskaluk, CA, Frierson, Jr., HF, Hampton, GM. Large-scale delineation of secreted protein biomarkers overexpressed in cancer tissue and serum. PNAS 100: 3410-3415, (2003).
5. Sinning, C et al. Candidate biomarkers in heart failure with reduced and preserved ejection fraction. Biomarkers 20: 258-265 (2015).
6. Lippi, G and Cervellin, G. Risk assessment of post-infarction heart failure. Systematic review on the role of emerging biomarkers. Critical Reviews in Clinical Laboratory Sciences 51: 13-29.
7. Breit, SN et al. The TGF- β superfamily cytokine, MIC-1/GDF-15: A pleiotropic cytokine with roles in inflammation, cancer and metabolism. Growth Factors 29: 187-195 (2011).

