DPPIV/CD26 Assay kit for biological samples

Because DPPIV/CD26 protein levels may not accurately reflect the levels of active DPPIV enzyme, it is useful to measure DPPIV activity rather than performing DPPIV immunoassay. The DPPIV/CD26 Assay kit for biological samples is a complete assay system designed to measure DPPIV activity in biological fluids such as plasma, serum, urine, and saliva. Uses for the kit include correlation of DPPIV activity with disease states or determination of the efficacy of DPPIV inhibitors administered *in vivo*. The kit can easily be used for other biological fluids such as tissue, live cells and cell extracts, and exudates. Enough reagents are provided to perform at least 96 assays. The kit contains both a chromogenic substrate (H-Gly-Pro-pNA) and a fluorogenic substrate (H-Gly-Pro-AMC). Cleavage of the p-nitroaniline (pNA) from the chromogenic substrate increases absorbance at 405 nm. The fluorimetric assay is based on the cleavage of 7-amino-4-methylcoumarin (AMC) moiety from the C-terminus of the peptide substrate, which increases its fluorescence intensity at 460 nm. A specific DPPIV inhibitor, P32/98, is included to uncover any activity not contributed by DPPIV. Also included is DPPIV enzyme to use as a positive control.

Citations: 21 View Online »

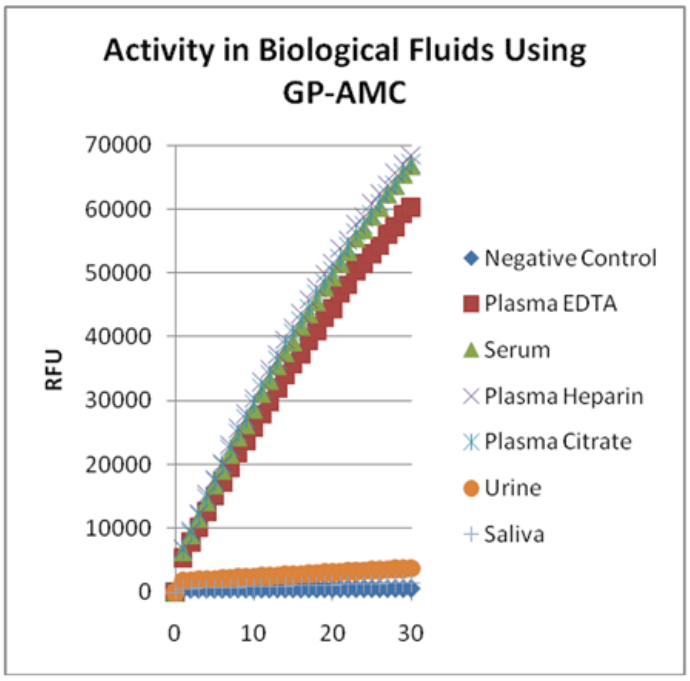
Ordering Information

Order Online »

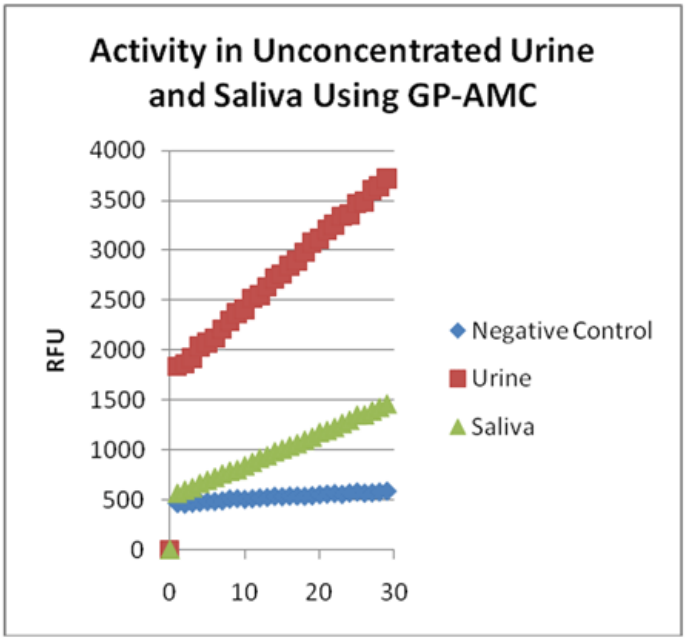
BML-AK498-0001	96 wells

Manuals, SDS & CofA

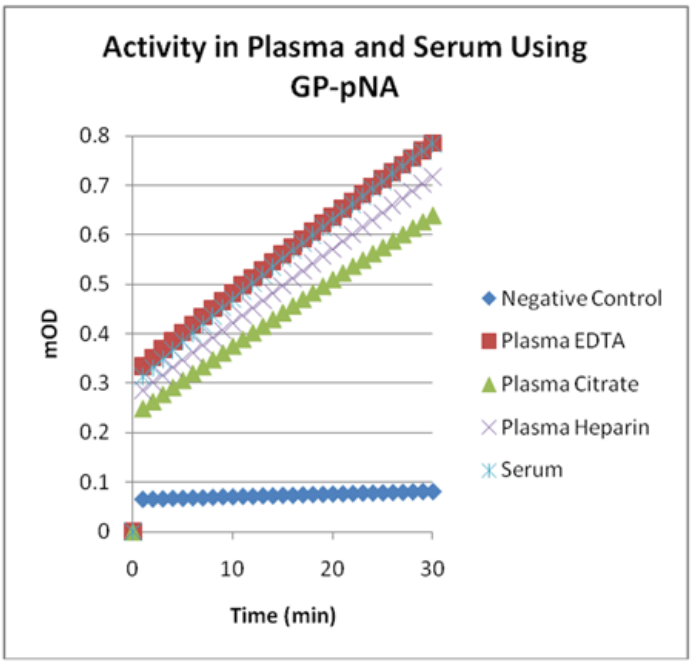
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Twenty microliters of biological sample were assayed at 25°C (30 minute read at 380/460nm) with GP-AMC (200 µM final). Negative control contained only substrate in assay buffer. Possible GP-AMC substrate depletion by undiluted plasma and serum became apparent after approximately 13 minutes. Unconcentrated urine and saliva activity levels were 40 and 80 times lower than plasma or serum, but readily detectable.



Twenty microliters of unconcentrated urine or saliva were assayed at 25°C (30 minute read) with GP-AMC (200µM).



Handling & Storage

Use/Stability	Substrates and inhibitor are in DMSO and are stable for up to 6 months. DPPIV enzyme activity decreases with time, even at -80°C.
Handling	Keep frozen at all times.
Long Term Storage	-80°C
Shipping	Dry Ice

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	CD26, Dipeptidyl Peptidase IV, DPP4
Application	Activity assay, Colorimetric detection, Fluorescent detection, HTS
Application Notes	Correlation of DPPIV activity with disease states, or determination of the efficacy of DPPIV inhibitors administered *in vivo*.
Compatibility	This product is compatible with the **Absorbance 96 Plate Reader**.

Contents

DPPIV enzyme (Human, recombinant)
(Prod. No. BML-SE434-9091)
(5 mU; One U=1µmole/min at 37°C, 100µM H-Gly-Pro-pNA. Purity ≥95% (SDS-Page)
Storage: -80°C; avoid freeze thaw cycles

pNA substrate (H-Gly-Pro-pNA)
(Prod. No. BML-P188-9091)
(55µl; 100mM in DMSO)
Storage: -80°C

pNA calibration standard (p-nitroaniline)
(Prod. No. BML-KI577)
(600µl; 80µM in 50mM Glycine, pH 8.7, 1mM EDTA)
Storage: -80°C

AMC substrate (H-Gly-Pro-AMC)
(Prod. No. BML-P189-9091)
(45µl; 50mM in DMSO),
Storage: -80°C

AMC calibration standard (7-amino-4-methylcoumarin)
(Prod. No. BML-KI578)
(600µl; 50µM in 50mM Glycine, pH 8.7, 1mM EDTA)
Storage: -80°C

Inhibitor P32/98
(Prod. No. BML-PI142-9090)
(20µl; 1mM in DMSO)
Storage: -80°C

Assay buffer
(Prod. No. BML-KI576)
(20ml; 50mM Glycine, pH 8.7, 1mM EDTA; liquid in screw-cap plastic bottle)
Storage: -80°C

½-volume clear microplate
(Prod. No. BML-KI101)
Storage: Ambient

½-volume NBS white microplate
(Prod. No. BML-KI571)
Storage: Ambient

Sensitivity

Can detect DPPIV activity in most or all biological samples.

UniProt ID

P27487

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