Oncology
TM-CA 72-4

CA 72-4
CA 15-3
CA 125
CA 19-9
CYFRA 21-1
NSE
CEA
PSA
TPA / TPS
UBC

DRG

DRG ELISA
Tumormarker TM-CA 72-4

The **DRG TM–CA 72-4 ELISA** is an enzyme immuno-assay for the quantitative in vitro diagnostic measurement of CA 72-4 (TAG-72) in serum and plasma.

CA 72-4 (Carbohydrate antigen 72-4) was identified as a mucine-like glycoprotein complex termed TAG-72 (tumor associated antigen 72) (1).

Elevated CA 72-4 levels in serum and plasma have been reported in various malignant diseases including carcinomas of pancreas, stomach, gall, colon, mamma, ovaries, cervix and endometrium (2).

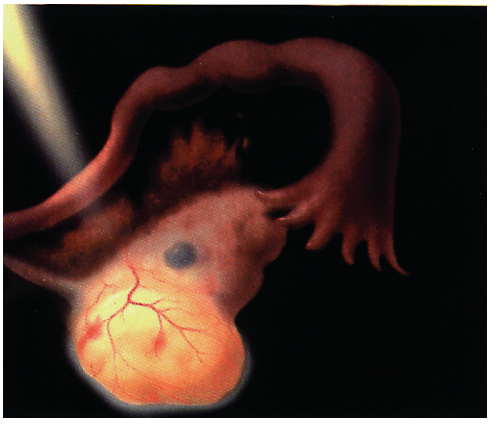
The highest diagnostic sensitivities are found for carcinomas of the gastrointestinal tract and the ovaries. An algorithm based on the combination of CA 72-4, CA 19-9, and CEA improves the diagnostic accuracy in gastrointestinal tract malignancies compared with these markers alone (3).

In gastric cancer, tumor markers CA 72-4 and bHCG are independent prognostic factors in addition to stage and histology of the tumor (4).

High preoperative serum levels of CA 72-4 in gastric cancer patients are considered as a specific predictor of tumor recurrence (5).

There is a good correlation between CA 72-4 levels and tumor stage and size.
Furthermore, the combined use of CA 72-4, CA-125II, and CA 15-3 improves the overall accuracy to discern healthy women from patients with early stage ovarian cancer (6).

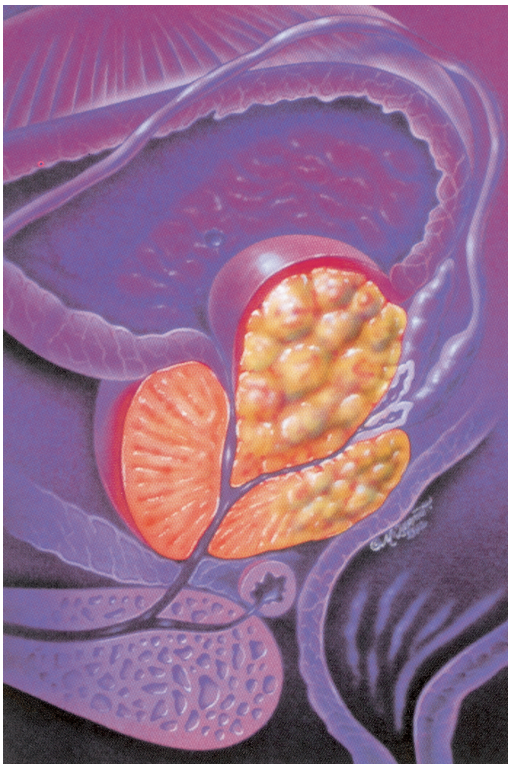
CA 72-4 is the marker of choice for the therapeutic monitoring and follow-up care of ovarian cancer patients, in particular in CA 125 negative cases (7).



Literature:

1) Johnson V.G. et al.: Analysis of a human tumor associated glycoprotein (TAG-72) identified by monoclonal antibody 72.3. Cancer Res., 1986, 46; 850-7.
2) Lamerz R. in Thomas L. (editor) Labor und Diagnose 6th edition, TH-Books Verlagsgesellschaft mbH, Frankfurt/Main 2005, 973-976.
3) Carpelan-Holmström M. et al.: CEA, CA 19-9 and CA 72-4 improve the diagnostic accuracy in gastrointestinal cancers. Anticancer Res., 2002, 22(4), 2311-6.
4) Louhimo J. et al.: Preoperative hCGbeta and CA 72-4 are prognostic factors in gastric cancer. Int. J. Cancer, 2004, 111(6), 929-33.
5) Aloe S., et al.: Prognostic value of serum and tumor tissue CA 72-4 content in gastric cancer. Int J Biol Markers, 2003, 18(1), 21-7.
6) Zhang Z. et al.: Combining multiple serum tumor markers improves detection of stage I epithelial ovarian cancer. Gynecol Oncol., 2007, 107(3), 526-31.
7) Hasholzner U. et al.: Significance of the tumour markers CA 125 II, CA 72-4, CASA and CYFRA 21-1 in ovarian carcinoma. Anticancer Res., 1994, 14(6B), 2743-6.

Tumormarker TM-CA 72-4



Principle of the test:
The DRG TM-CA 72-4 ELISA Kit is a solid phase enzyme-linked immunosorbent assay (ELISA) based on the sandwich principle.

The microtiter wells are coated with a monoclonal [mouse] antibody directed towards a unique antigenic site on a CA 72-4 molecule. An aliquot of patient sample containing endogenous CA 72-4 is incubated in the coated well with enzyme conjugate, which is an anti-CA 72-4 antibody conjugated with horseradish peroxidase. After incubation the unbound conjugate is washed off.

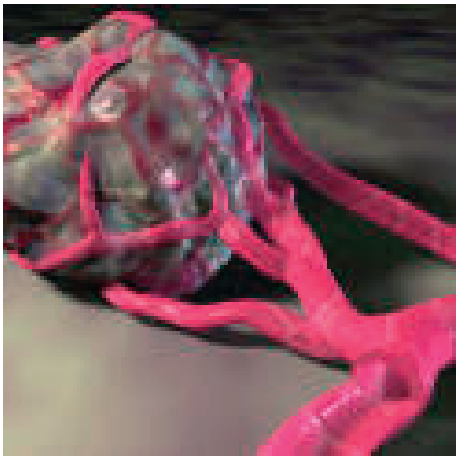
The amount of bound peroxidase is proportional to the concentration of CA 72-4 in the sample.

Having added the substrate solution, the intensity of colour developed is proportional to the concentration of CA 72-4 in the patient sample.

TM-CA 72-4

Cat. No.:	EIA-5071
Incubation time:	2.5 h
Standard range:	3 - 100 U/mL
Sample:	20 µL Serum or Plasma
Sensitivity:	0.79 U/mL
CV Intra Assay:	1.55 – 2.41 %
CV Inter Assay:	12.7 – 13.9 %
Recovery:	88.2 – 106.8 %
Linearity:	86.0 – 112.3 %

- Internal kit control
- CE marked



*The antibodies used in this assay are patented by:

1. U.S. Patent No. 5,512,443, issued April 4, 1996 entitled "Second generation monoclonal antibodies having binding specificity to TAG-72 and human carcinomas and methods for employing the same" (HHS Reference No. E-160-1987/0-US-18)
2. Canadian Patent No. 1339980, issued August 4, 1998 entitled "Second generation monoclonal antibodies having binding specificity to TAG-72 and human carcinomas and methods for employing the same" (HHS Reference No. E-160-1987/0-CA-04)
3. U.S. Patent No. 4,522,918, issued June 11, 1985 (now expired) entitled "Process for Producing Monoclonal Antibodies Reactive with Human Breast Cancer" (HHS Reference No. E-185-1981/0-US-01)

DRG ELISAS

Tumormarker

TM-CYFRA 21-1
TM-CA 72-4
TM-CA 15-3
TM-CA 125
TM-CA 19-9
CEA
PSA
Free PSA
NSE
TPS
Chromogranin

Gyn. Endocrinology

Estradiol
Progesterone
17a-OH Progesterone
DHEA-S
Testosterone
DHEA
Estrone
Androstendione
DHT
SHBG
Free Testosterone

Prenatal Supervision

Free Beta HCG
PAPP-A
AFP
Free Estriol
HCG
HPL
PLGF

Saliva Diagnostics

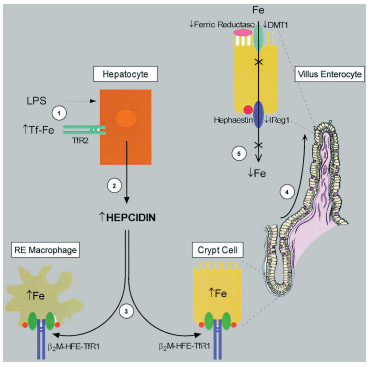
Androstendione
Cortisol
Estradiol
Estriol
Testosterone
DHEA
Progesterone
17α-OH Progesterone
Lactate
IgA
Melatonin
DHEA-S

Diabetes/Obesity

Insulin
C-Peptid
Proinsulin
Leptin

Iron Metabolism

Hepcidin
Pro-Hepcidin



Hypertension

Renin (active)
Aldosterone

DRG Diagnostics

DRG Instruments GmbH, mit Sitz in Marburg, wurde im Jahre 1973 als Niederlassung von DRG International, Inc. USA gegründet. Heute widmet sich die Firma hauptsächlich der Entwicklung, Produktion und dem weltweiten Vertrieb von neuen und innovativen ELISA Testsystemen.
Die DRG ist nach ISO 9001 und ISO 13485 zertifiziert.

DRG Diagnostics

DRG Instruments GmbH, founded in 1973 by Dr. Geacintov, subsidiary of DRG Intl. Inc., USA, is a manufacturer of ELISAS.
The DRG Group operates through a network of DRG subsidiaries in Germany, Poland, Russia and the Czech Republic and through distributors worldwide.

ELISAS that perform

DRG entwickelt, produziert und vertreibt diagnostische ELISA Testkits für den Gebrauch in Klinik und Forschung.
Die Erfahrung unseres Produktions- und Managementteams garantiert hochqualitative Produkte mit einem guten Preis-Leistungs-Verhältnis und einem exzellenten Kundenservice.
DRG Kits bieten beste Qualität, hervorragende Performance und Reproduzierbarkeit sowie einfache Handhabung: Mikrotiterstrips einzeln brechbar, gebrauchsfertige Reagenzien, kurze Inkubationszeiten und lange Haltbarkeit.

ELISAS that perform

DRG develops and manufactures diagnostic ELISA test kits for use in clinical and research laboratories.
The experience of our production and management team guarantees to provide high quality products, competitive prices and excellent customer service.

DRG works to DIN EN ISO 9001:2008, ISO 13485:2007 and ISO 13485:2003 under CMDCAS standard, certified by TÜV Rheinland Product Safety GmbH, an indication of our commitment to customer service, quality control and improved health care.

DRG Instruments GmbH, Germany
Frauenbergstraße 18
D-35039 Marburg
Tel. +49 (0) 64 21/170 00,
Fax +49 (0) 64 21/17 00 50
Internet: www.drg-diagnostics.de
E-mail: drg@drg-diagnostics.de

Distributed by

DRG International Inc. USA
1167 U.S. Highway 22 East
Mountainside, N.J. 07092 USA
Phone: +1 (908) 233-2079
Fax +1 (908) 233-0758
Internet: www.drg-international.com
E-mail: corp@drg-international.com

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