



theraprint™

DRUG TARGET PANEL

Research Use Only

(Page 1 of 3)

CUSTOMER

Doctor:
Account:

Address:

City, St., Zip:

SPECIMEN

Requisition #:
Collection Date:
Test Request Date:
Date Received:
Report Date:
Specimen Type:
Customer Ref.:

PATIENT

Patient:

DOB:
Patient #:
Gender:
SSN:

TheraPrint Drug Target Panel

Unigene Symbol ¹	UniGene Cluster ID	Unigene Name	Relative Expression Percentile	Absolute Expression (intensity)	Reference Distribution 5% - 95% ¹
AKT1	Hs.525622	V-akt murine thymoma viral oncogene homolog 1	15	9.8	9.1 - 11.4
AURKA	Hs.250822	Aurora kinase A	25	7.9	7.5 - 9.8
BCL2	Hs.150749	B-cell CLL/lymphoma 2	71	10.3	7.2 - 11.1
BRAF	Hs.550061	V-raf murine sarcoma viral oncogene homolog B1	37	7.5	7.0 - 8.6
BRCA1	Hs.194143	Breast cancer 1, early onset	65	7.5	6.6 - 8.3
BRCA2	Hs.34012	Breast cancer 2, early onset	22	6.1	5.9 - 6.8
C11orf30	Hs.352588	Chromosome 11 open reading frame 30	82	8.0	7.0 - 8.6
CCND1	Hs.523852	Cyclin D1	53	10.3	8.5 - 12.4
CCNE1	Hs.244723	Cyclin E1	60	9.4	8.4 - 10.7
CDH1	Hs.461086	Cadherin 1, type 1, E-cadherin (epithelial)	49	12.2	9.5 - 13.6
CDH3	Hs.554598	Cadherin 3, type 1, P-cadherin (placental)	16	8.2	7.7 - 11.7
CRYAB	Hs.408767	Crystallin, alpha B	12	8.9	8.4 - 13.3
CSK	Hs.77793	C-src tyrosine kinase	16	7.6	7.2 - 8.9
CXCL12	Hs.522891	Chemokine (C-X-C motif) ligand 12 (stromal cell-derived factor 1)	32	8.6	7.2 - 10.8
CXCL14	Hs.483444	Chemokine (C-X-C motif) ligand 14	97	17.0	10.3 - 16.6
DHFR	Hs.83765	Dihydrofolate reductase	39	9.0	7.8 - 10.6
ECGF1	Hs.592212	Endothelial cell growth factor 1 (platelet-derived)	43	9.5	8.2 - 11.3
EGFR	Hs.488293	Epidermal growth factor receptor (erythroblastic leukemia viral (v-erb-b) oncogene homolog, avian)	3	6.0	6.0 - 8.0
ERBB3	Hs.118681	V-erb-b2 erythroblastic leukemia viral oncogene homolog 3 (avian)	53	10.4	8.6 - 11.4
ERBB4	Hs.390729	V-erb-a erythroblastic leukemia viral oncogene homolog 4 (avian)	80	7.3	6.0 - 8.1
ESR2	Hs.660607	Estrogen receptor 2 (ER beta)	76	6.2	6.0 - 6.5
FANCF	Hs.651196	Fanconi anemia, complementation group F	25	8.9	8.4 - 12.6
FLT1	Hs.507621	Fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular permeability factor receptor)	12	7.7	7.4 - 9.5
FLT3	Hs.507590	Fms-related tyrosine kinase 3	91	7.8	6.0 - 8.0
FLT4	Hs.646917	Fms-related tyrosine kinase 4	93	7.8	6.3 - 7.8
FRAP1	Hs.338207	FK506 binding protein 12-rapamycin associated protein 1	43	7.8	7.2 - 8.5
GSDML	Hs.306777	Gasdermin-like	42	7.1	6.4 - 9.4



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IGF1R	Hs.592020	Insulin-like growth factor 1 receptor	50	6.7	6.1 - 7.6
IGF2R	Hs.487062	Insulin-like growth factor 2 receptor	10	8.4	7.9 - 10.5
KDR	Hs.479756	Kinase insert domain receptor (a type III receptor tyrosine kinase)	41	7.0	6.4 - 8.0
KIT	Hs.479754	V-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog	30	7.3	6.5 - 9.8
KRAS	Hs.505033	V-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog	82	10.5	8.6 - 11.1
KRT17	Hs.2785	Keratin 17	3	8.4	8.4 - 12.6
KRT5	Hs.433845	Keratin 5 (epidermolysis bullosa simplex, Dowling-Meara/Kobner/Weber-Cockayne types)	37	8.4	7.6 - 11.5
KRT8	Hs.533782	Keratin 8	18	12.8	12.2 - 14.5
MAP2K1	Hs.145442	Mitogen-activated protein kinase kinase 1	70	8.8	7.4 - 9.5
MAP2K2	Hs.465627	Mitogen-activated protein kinase kinase 2	57	9.9	8.6 - 10.7
NFKB1	Hs.431926	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1 (p105)	66	9.8	8.7 - 10.4
NFKB2	Hs.73090	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 2 (p49/p100)	59	7.4	6.7 - 8.1
PDGFRA	Hs.74615	Platelet-derived growth factor receptor, alpha polypeptide	58	9.0	7.3 - 10.3
PDGFRB	Hs.509067	Platelet-derived growth factor receptor, beta polypeptide	10	9.2	8.8 - 11.4
PIK3CA	Hs.85701	Phosphoinositide-3-kinase, catalytic, alpha polypeptide	60	7.9	6.4 - 8.9
PIK3R1	Hs.132225	Phosphoinositide-3-kinase, regulatory subunit 1 (p85 alpha)	50	8.8	7.4 - 10.2
PITX2	Hs.643588	Paired-like homeodomain transcription factor 2	31	6.4	6.0 - 7.9
PRKCB1	Hs.460355	Protein kinase C, beta 1	12	6.8	6.5 - 9.2
PTH1H	Hs.591159	Parathyroid hormone-like hormone	97	10.2	6.6 - 9.3
RAD51C	Hs.412587	RAD51 homolog C (S. cerevisiae)	64	9.6	8.5 - 10.8
RAD51L1	Hs.172587	RAD51-like 1 (S. cerevisiae)	69	6.2	5.9 - 6.4
RAD51L3	Hs.631757	RAD51-like 3 (S. cerevisiae)	13	7.0	6.8 - 8.2
RAF1	Hs.159130	V-raf-1 murine leukemia viral oncogene homolog 1	35	10.3	7.8 - 11.0
TRIM29	Hs.504115	Tripartite motif-containing 29	21	6.9	6.5 - 9.7
TYMS	Hs.592338	Thymidylate synthetase	32	9.5	8.4 - 11.3
VEGFA	Hs.73793	Vascular endothelial growth factor A	2	7.7	7.7 - 11.5
VEGFB	Hs.78781	Vascular endothelial growth factor B	33	12.4	11.5 - 13.4
XRCC2	Hs.647093	X-ray repair complementing defective repair in Chinese hamster cells 2	3	6.0	5.9 - 6.5
XRCC3	Hs.592325	X-ray repair complementing defective repair in Chinese hamster cells 3	37	6.6	6.3 - 7.7



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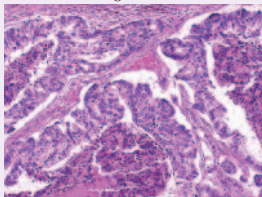
PATIENT

Patient:

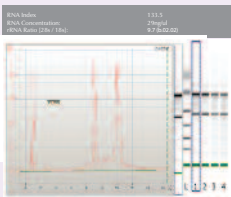
DOB:
Patient #:
Gender:
SSN:

Pathology Results

Tumor Percentage: 40%



RNA Integrity Score: 5 Excellent



Pathology Comments:

The specimen has been reviewed to determine the tumor cell percentage.

*The tumor cell percentage as reported relates to the tissue sample received by Agendia and serves as a quality control for the test. The presence of tumor cells as reported by Agendia cannot be used as a diagnosis of invasive disease.

Assay Description

Using DNA microarray technology, TheraPrint™ measures the mRNA level of genes that are of potential interest in the context of cancer therapy. Leveraging the chip capacity, the expression of each gene is assessed in multifold, assuring precise results. Provided is the absolute expression (²log intensity) of the patient's genes ranging from 0 to 19.3. The relative expression percentile represents the patient's gene expression compared to a reference population of newly diagnosed untreated breast cancer patients (n=373) and indicates the percentage of reference samples with a lower intensity

Relative Gene Expression

For each TheraPrint Gene, the absolute expression is measured and compared to the reference distribution. The relative expression of the patient's gene is given as a percentile score. This percentile score indicates the percentage of reference samples with a lower intensity. For instance, a percentile score of 91 indicates that 91% of the samples in the reference distribution had intensities lower than the intensity found in the patient's sample.

Absolute Gene Expression (²log intensity)

The absolute expression level is the 2log of the intensity of each gene as measured on the Agilent microarrays (HD 8-pack). The measurement value ranges from 0 to 19.3 and is proportional to the expression level of the gene. However, the value cannot be directly translated to RNA concentration or copy number as there are no known cutoffs to determine whether a given expression level is truly high / low or activated / inactivated. The gene expression level of a given patient's results can only be compared to the gene expression level of all other samples in the reference distribution to provide relative interpretation of rather high or rather low.

Reference Distribution

The reference distribution was established using 373 samples from newly diagnosed breast cancer patients untreated with chemotherapy or hormonal therapy. Each of the samples was hybridized onto the Agilent HD 8-pack array, the ²log intensity of the research panel genes was measured and the results compiled. To indicate the expression distribution of the individual gene, the reference distribution is given as the 5-95% expression range on the 0 to 19.3 ²log intensity scale.

Sign Off

Chynel Henning, M.D.

Chynel F. Henning, M.D., Ph.D., FASCP, FCAP
Pathologist
Laboratory Director

References:

1. www.agendia.com/researchgenepanel
2. <http://www.ncbi.nlm.nih.gov/sites/entrez>

Regulatory Information

For In Vitro Diagnostic Use Caution: Federal law restricts this device to sale by or on the order of a physician. Agendia, Inc (05D1089250) is certified under the Clinical Laboratory Improvement Amendments of 1988 (CLIA) as qualified to perform high-complexity clinical testing. Research Gene Panel is an aid to measure the mRNA expression levels of certain genes in patients diagnosed with breast cancer. Decisions regarding care and treatment should not be based on a single test such as this test. Rather, decisions on care and treatment should be based on the independent medical judgment of the treating physician taking into consideration all available information concerning the patient's condition, including other pathological tests, in accordance with the standard of care in a given community.

This test was performed at Agendia's Irvine, California laboratory.



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