

Materials List for:

## Building Up a High-throughput Screening Platform to Assess the Heterogeneity of *HER2* Gene Amplification in Breast Cancers

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URL: <https://www.jove.com/video/56686>

DOI: [doi:10.3791/56686](https://doi.org/10.3791/56686)

### Materials

Name	Company	Catalog Number	Comments
Surgipath Paraplast	Leica Biosystems, Wetzlar, Germany, EU	39601006	Tissue embedding medium, 56 °C melting point
Eosin Y 1% water solution	Bio Optica, Milan, Italy, EU	510002	Eosin yellowish, water-soluble
Carazzi's hematoxylin	Bio Optica, Milan, Italy, EU	506012	Alum hematoxylin ripened using potassium iodate
Diamond quality	Laboindustria, Arzergrande, Italy, EU	33533	26x76 mm microscope slides
Leica CV Mount	Leica Biosystems, Wetzlar, Germany, EU	14046430011	Mounting medium, with no monomers, based on polymers of butylmethacrylate in xylene
FLEX IHC microscope slides	Agilent Technologies (Dako), Santa Clara, CA, USA	K8020	Coated microscope slides for adhesion of FFPE for use in IHC
BenchMark ULTRA	Ventana medical system, Tucson, AZ, USA	N750-BMKU-FS	Slide staining system
CONFIRM anti-Estrogen Receptor (ER) (SP1) Rabbit Monoclonal Primary Antibody	Ventana medical system, Tucson, AZ, USA	790-4324	Primary antibody, ready-to-use
CONFIRM anti-Progesterone Receptor (PR) (1E2) Rabbit Monoclonal Primary Antibody	Ventana medical system, Tucson, AZ, USA	790-2223	Primary antibody, ready-to-use
CONFIRM anti-Ki-67 (30-9) Rabbit Monoclonal Primary Antibody	Ventana medical system, Tucson, AZ, USA	790-4286	Primary antibody, ready-to-use
PATHWAY HER2 (4B5) Rabbit Monoclonal Primary Antibody	Ventana medical system, Tucson, AZ, USA	790-4493	Primary antibody, ready-to-use
ultraView Universal DAB Detection Kit	Ventana medical system, Tucson, AZ, USA	760-500	Indirect, biotin-free system for detecting mouse IgG, mouse IgM and rabbit primary antibodies
INFORM HER2 Dual ISH DNA Probe Cocktail	Ventana medical system, Tucson, AZ, USA	780-4422	INFORM HER2 Dual ISH assay - Dual color in situ hybridization FDA approved automated assay for determining HER2 gene status in breast cancer patients
ultraView Silver ISH DNP Detection Kit	Ventana medical system, Tucson, AZ, USA	800-098	
ultraView Red ISH DIG Detection Kit	Ventana medical system, Tucson, AZ, USA	800-505	

ISH Protease 3	Ventana medical system, Tucson, AZ, USA	780-4149	Used in the ISH process to remove protein that surrounds the target DNA sequences of interest
Hematoxylin	Ventana medical system, Tucson, AZ, USA	760-2021	Modified Gill's hematoxylin counterstain reagent
Hematoxylin II Counterstaining	Ventana medical system, Tucson, AZ, USA	790-2208	Modified Meyer's hematoxylin counterstain reagent
Bluing reagent	Ventana medical system, Tucson, AZ, USA	760-2037	Aqueous solution of buffered lithium carbonate for bluing hematoxylin stained sections on glass slides
HybReady	Ventana medical system, Tucson, AZ, USA	780-4409	Formamide-based buffer for ISH assays
EZ Prep (10x)	Ventana medical system, Tucson, AZ, USA	950-102	Concentrate solution for paraffin removal from tissue samples during IHC and ISH reactions, and to dilute 1:10.
SSC Buffer (10X)	Ventana medical system, Tucson, AZ, USA	950-110	Sodium Chloride Sodium Citrate buffer solution is used for stringency washes and to rinse slides between staining steps and provide a stable aqueous environment for the in situ hybridization reactions. Dilute 1:5.
ULTRA LCS	Ventana medical system, Tucson, AZ, USA	650-210	Prediluted (ready-to-use) coverslip solution used as a barrier between the aqueous reagents and the air to prevent evaporation in the IHC and ISH reactions
Reaction Buffer (10x)	Ventana medical system, Tucson, AZ, USA	950-300	Tris based buffer solution (pH 7.6 ± 0.2) to rinse slides between staining steps during IHC and ISH. Dilute 1:10.
ULTRA Cell Conditioning (ULTRA CC2)	Ventana medical system, Tucson, AZ, USA	950-223	Pretreatment steps in the processing of tissue samples during IHC and ISH. Ready to use.
ULTRA Cell Conditioning (ULTRA CC1)	Ventana medical system, Tucson, AZ, USA	950-224	
ultraView Silver Wash II	Ventana medical system, Tucson, AZ, USA	780-003	Ready-to-use solution to rinse slides between IHC and ISH staining steps
Microtome	Leica Biosystems, Wetzlar, Germany, EU	RM 2255	Automated rotary microtome
Multistainer	Leica Biosystems, Wetzlar, Germany, EU	ST 5020	Workstation for automated staining and coverslipping
Minicore 1	Alphelys, Plaisir, France, EU	00-MICO-1	Semi-automatic arrayer for TMA construction with TMA Designer 2 embedded software
Aperio ScanScope CS2	Leica Biosystems, Wetzlar, Germany, EU	K080254	Image capture device - digital pathology scanner
Tissue-Tek III Uni-Cassette	Sakura Finetek Europe B.V	4135	Cassette
Tissue-Tek Paraform Standard Base Mold	Sakura Finetek Europe B.V	7055	Stainless-Steel base metal mold