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#### Above: Heat Shock Protein 27 (G3.1)

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## Cell Marque<sup>™</sup> Tissue Diagnostics Breast/GYN Pathology



#### GATA3 (L50-823)

#### Cat. No. 390M-1

GATA3 is primarily expressed in breast carcinoma and urothelial carcinoma and is only rarely found in tumors from other organs. Anti-GATA3 stains 100% of lobular breast carcinomas and 91% of invasive ductal carcinomas (grade I, 100%; grade II, 89% and grade III, 86%). GATA3 expression is also found in urothelial carcinoma, especially in invasive and high grade tumors, making anti-GATA3 an excellent addition in combination with other antibodies for the detection of unknown primary carcinoma, when carcinomas of the breast or bladder are a possibility.



#### Stathmin (SP49)

#### Cat. No. 394R-1

Stathmin can be utilized to distinguish high-grade dysplasia (CIN II and CIN III) from low-grade dysplasia (CIN I). This distinction is important as the current standard, p16, is unable to differentiate the different types of CIN since it stains all dysplasia equally. Anti-stathmin is best used in combination with p16, Ki-67, and Cytokeratin 17 for dysplasia and atypical immature metaplasia (AIM) differentiation.



### Breast/GYN Pathology



#### p120 Catenin (MRQ-5)

#### Cat. No. 420M-1

In the cell, p120 catenin is localized to the E-cadherin/catenins cell adhesion complex. Lobular carcinoma of the breast shows intracytoplasmic accumulation of p120 catenin while ductal carcinoma shows reduced membrane p120 catenin without cytoplasmic accumulation. In gastric and colonic carcinoma, strong cytoplasmic p120 catenin is associated with discohesive infiltrative morphology.



#### Heat Shock Protein 27 (G3.1)

#### Cat. No. 398M-1

Heat shock proteins (HSPs) are a family of molecular chaperones that facilitate a host of critical cellular functions, including protein homeostasis, transport processes, and signal transduction. These proteins can be detected under normal physiological conditions but there is a general increase in expression upon exposure to cellular stresses. In cancerous disease states, HSPs function in promoting tumor cell survival.<sup>1</sup> Among the members of the HSP family that have been subject to extensive study, HSP27 has been demonstrated to be present in a variety of cancer types, including malignancies of the breast,<sup>2</sup> colon,<sup>3</sup> kidney,<sup>4</sup> and cervix.<sup>5</sup> Anti-HSP27 has also been shown to be helpful in distinguishing between high grade cervical intraepithelial neoplasms from low grade lesions.<sup>6</sup>



#### FOXA1 (2F83)

#### Cat. No. 405M-1

FOXA1 is a transcription factor expressed in normal breast ductal epithelium and other epithelium in different organs, such as lung, pancreas, bladder, prostate, and colon. It has been reported to coexpress with ER in breast carcinoma, predominantly in luminal subtype A. The results indicate that anti-FOXA1 is useful in the sub-classification of breast carcinoma.



#### EZH2 (11)

#### Cat. No. 415M-1

Hyper-activation of EZH2, either by over expression or mutations is found in a variety of malignancies including breast and uterine cancers. EZH2 determines breast tumor aggressiveness and promotes neoplastic transformation in breast tissue.<sup>7</sup> EZH2 has also been published as a reliable marker to distinguish malignant from benign tumors in the live.<sup>8</sup>

#### **References:**

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