BIOCARE MEDICAL

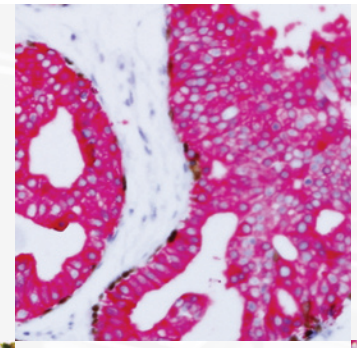
# 5 Problems, One Simple Solution

ADH-5 simplifies interpretation and helps with diagnostic challenges such as differentiation of atypical ductal hyperplasia from hyperplasia of the usual type, identifying microinvasion and invasive ductal carcinoma, and distinguishing basal phenotypes in triple negatives.

Multiplex IHC is a powerful tool to solve the challenging problems of breast cancer diagnosis. ADH-5 simultaneously tests for 5 key markers (CK5/14, p63 and CK7/18) of breast disease in one simple staining procedure.

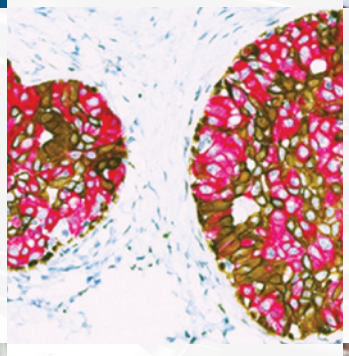
- **Differentiate usual hyperplasia from ADH**
- **Identify microinvasion and invasive ductal carcinoma**
- **Distinguish basal phenotypes in triple negatives**
- **One multiplex IHC replaces three single stains**

## ADH-5

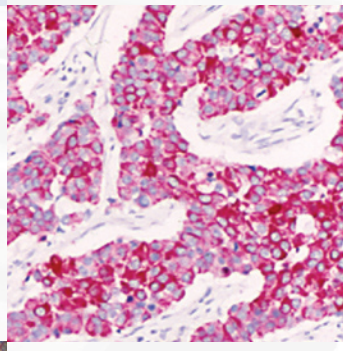


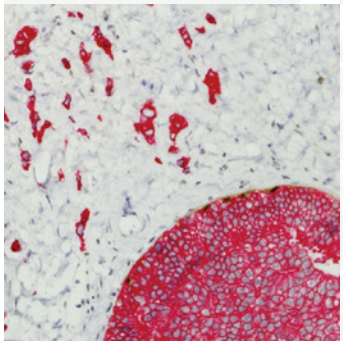
Atypical Ductal Hyperplasia; CK5/14 and p63 staining basal myoepithelium cells (DAB); CK7/18 staining luminal epithelium (FR).

Hyperplasia of the usual type; p63 staining basal myoepithelium cells (DAB); CK5/14 (DAB) and CK7/18 (FR) staining luminal epithelium.

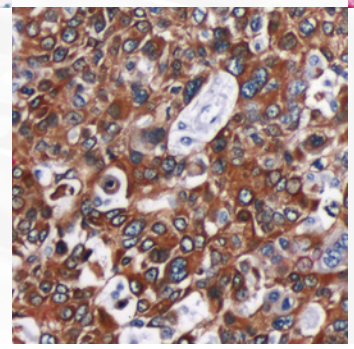


Invasive breast cancer: CK7/18 only.





Microinvasion; CK7/18 only (FR). Loss of CK5/14 and p63 (DAB).

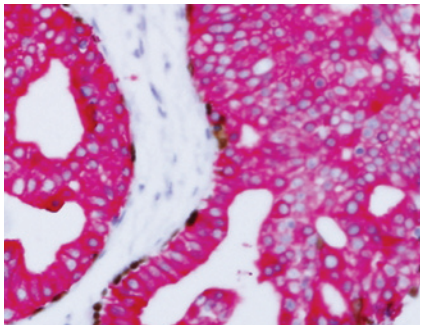


Basal phenotype: luminal staining showing expression of CK5/14 (DAB).

# ADH-5™

Simplifying the interpretation of five challenging breast diseases in one easy test. ADH-5 breast marker multiplex IHC is composed of CK5/14 + p63 + CK7/18 antibodies. This multiplex IHC product can assist with the diagnosis of a range of breast cancer indications: Invasive versus noninvasive breast lesions can be easily distinguished by the presence or absence of myoepithelium (CK5/14 and/or p63, DAB) and glandular staining of breast cancer with CK7/18 (Fast Red). ADH-5 can clearly differentiate hyperplasia of the usual type from atypical hyperplasia, and identifies microinvasion and basal phenotypes in breast cancer.

Luminal or cytoplasmic staining may also be observed with CK5/14 and/or CK7/18 bimodal staining. For a basal-phenotype classification only CK5/14 (DAB) luminal staining is observed. Breast cancer with bimodal and/or basal-like staining is associated with poor prognosis.



Atypical Ductal Hyperplasia: CK5/14 and p63 staining basal myoepithelium cells (DAB), CK7/18 staining luminal epithelium (FR).

## Breast Marker Products from Biocare

| Product Name | Clinical Utility | Cat No. |
|---|---|---|
| ADH-5 | Myoepithelium / basal phenotype | PM 360DS AA, H |
| AKT (phosphorylated) | Poor prognosis | CRM 276 AK |
| Bcl-2 | Predictive | CM 003, PM 003 AA |
| Bmi-1 | Progenitor / molecular marker for metastasis | CM 337 AK |
| BRCA1 | BRCA1 protein | CM 345 A, B, C |
| Caspase-3 (Activated) | Marker of apoptosis | CP 229 A, B, C, PP 229 AA |
| CD133 | Stem cell population | CP 348 A, B, C |
| CD24 | Marker for poor prognosis | CM 323 A, B |
| CD31 | Angiogenesis | PM 131 AA |
| CD44 | CD24 (-) and CD44 (+) identifies stem cell population | CM 318 A, B, C, PM 318 AA |
| c-erbB-2 (CB11) | Herceptin response | CME 342 A, B, PME 342 AA |
| CK5 + p63 | Myoepithelial marker / basal phenotype | PM 235 AA, H |
| COX-2 (RM) | Marker of poor prognosis | CRM 306 A, B, C, PRM 306 AA |
| D2-40 | Lymphatic marker | CM 266 A, B, C, PM 266 AA |
| E-cadherin | Associated with metastasis and poor prognosis | CM 170 A, B, C, PM 170 AA |
| EGFR (Phosphorylated) (RM) | Poor prognosis | CME 300 AK, PME 300 AA |
| ER [6F11] | Estrogen receptor | CM 093 A, B, C, PM 093 AA, H |
| ER Cocktail [6F11 + SP1] | Estrogen receptor | PM 308 AA, H |
| GCDFP-15 | Breast marker | CM 113 A, B, C, PM 113 AA |
| GCDFP-15 + Mammaglobin - Double Stain | Dual breast marker | PM 317DS AA |
| Ki-67 | Cell proliferation | CM 080 A, B, C, PM 080 AA, H |
| Mammaglobin (RM) | Breast marker | PM 269 AA, H |
| MUC-1 | Prognostic | CM 319 A, B, PM 319 AA |
| p53 (RM) | Poor prognosis | CME 298 AK, BK, PME 298 AA |
| PR | Progesterone receptor | PM 343 AA, H |
| PTEN | Tumor suppressor (favorable prognosis) | CM 278 A, PM 278 AA |

BIOCARE MEDICAL
800.799.9499
4040 Pike Lane
Concord CA 94520
www.biocare.net