Background

Mutations on **KRAS, NRAS, BRAF, PI3K** genes can activate several downstream effectors, including the **PI3K-AKT-mTOR** pathway which is involved in cell survival, and the **RAS-RAF-MEK-ERK** pathway which is involved in cell proliferation and causes the resistance for the drugs which targeted on **EGFR** signal pathway, such as monoclonal antibodies used on colorectal cancer (e.g. Cetuximab, Panitumumab etc.).

International guidelines (NCCN, ESMO and CSCO) confirm the mutations out of **KRAS** exon 2 also need to be detected. Therefore, panel testing is the best solution for colorectal cancer.

<table>
<thead>
<tr>
<th>Guideline</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCCN</td>
<td>For mCRC patients, it needs to determine the tumor gene status for <strong>RAS (KRAS and NRAS)</strong> and <strong>BRAF</strong> Recommend <strong>BRAF</strong> testing for stage IV patients.</td>
</tr>
<tr>
<td>ESMO</td>
<td>To bring better reference for diagnostic, all mCRC (metastatic colorectal cancer) patients need to take <strong>RAS</strong> and <strong>BRAF</strong> testing.</td>
</tr>
<tr>
<td>CSCO</td>
<td>For mCRC patients, it needs to detect tumor gene status for <strong>KRAS, NRAS</strong> and <strong>BRAF</strong>.</td>
</tr>
</tbody>
</table>

AmoyDx is the only supplier of CRC panel testing kits which meet all the authoritative guideline requirements.

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**AmoyDx® Colon Cancer Therapeutic Target Identification Solution**

**AmoyDx® Colon Cancer Testing Solution:**

- **AmoyDx® DNA Extraction Kit**
- **AmoyDx® KRAS/NRAS**
  
  1. KRAS (-)  
  2. NRAS (-)  
  3. BRAF (-)  
  4. PIK3CA (-)  

  **Erbitux, Vectibix**

- **AmoyDx® KRAS/NRAS/BRAF**
  
  1. KRAS (+)  
  2. NRAS (+)  
  3. BRAF (+)  
  4. PIK3CA (+)

  **Chemotherapy**

**Better Life with AmoyDx**

References:
4. www.mycancergenomic.org
CAPRI GOIM Study

Patients who harbor one of the mutation will not gain benefit from Cetuximab.

* At least one mutation appeared.

Kits SUPER Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selectable</td>
<td>Pre-loaded and bulk formats are available</td>
</tr>
<tr>
<td>Universal</td>
<td>Compatible with tissue, body fluid, FNA samples</td>
</tr>
<tr>
<td>Precise</td>
<td>Top sensitivity of 1% mutant allele</td>
</tr>
<tr>
<td>Easy</td>
<td>One-step procedure, results in 90 mins</td>
</tr>
<tr>
<td>Reliable</td>
<td>Internal and external controls included</td>
</tr>
</tbody>
</table>

Kits Order Information

<table>
<thead>
<tr>
<th>Kit Name</th>
<th>Spec.</th>
<th>Tests/Kit</th>
<th>Mutations Detected</th>
</tr>
</thead>
</table>
| KRAS/NRAS              | Pre-loaded | 6         | KRAS: 19 mutations  
NRAS: 13 mutations |
|                        | Bulk       | 24        |                                          |
| KRAS/NRAS/BRAF         | Pre-loaded | 6         | KRAS: 19 mutations  
NRAS: 13 mutations  
BRAF: 6 mutations |
| KRAS/NRAS/PIK3CA/BRAF  | Pre-loaded | 6         | KRAS: 17 mutations  
NRAS: 12 mutations  
BRAF: 6 mutations  
PIK3CA: 2 mutations |
|                        |            | 24        |                                          |

To Order

Please contact our authorized distributor or Account Manager.